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## ECONOMIC AND SOCIAL CONSEQUENCES OF DRUG ABUSE AND ILLICIT TRAFFICKING: AN INTERIM REPORT

Note by the Secretariat

*E/CN.7/1995/1.

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Summary

The present report is an interim survey of the economic and social consequences of illicit drug abuse and trafficking. It responds to a variety of mandates, from the General Assembly and the Commission on Narcotic Drugs, for such an assessment. Given the complexity of the issue, the inaccessibility of some of the data needed to address it and the limitations of space, the present report can provide only a preliminary overview.

The economic consequences of drug abuse and trafficking spread across a wide spectrum. Identifiable costs of drug abuse in consumer countries seem to range from 0.5 to 1.3 per cent of gross domestic product, the largest part of which involves drug-related crime and law enforcement costs. The health costs of a drug addict appear to be some 80 per cent higher than those of an average citizen in the same age group. Drug abuse has a negative impact upon productivity. The illicit drug industry seems to generate significant rates of employment in only a few producer countries in Asia and Latin America, covering approximately one tenth of the economically active population. In most countries, however, the employment-generating effect remains below the 1 per cent benchmark. Prices of illicit drugs reflect primarily the perceived level of risk in distribution and sales. Among the many determinants of prices, therefore, the success or failure of interdiction appears to be one of the most crucial. Illicit drug money is mostly spent on conspicuous consumption, and not generally used for productive investment. Even when invested, it is not conducive to sustainable economic growth. The impact of an illicit drug industry on the balance of trade and of payments of a producer country may be positive in the short run, but tends in the long run to crowd out non-drug exports, and to lead to "Dutch Disease". Large drug funds circulating in an economy severely complicate macro-economic management, and restrict the room for manoeuvre of a Government.

The social consequences of drug abuse spread across an equally wide spectrum, though the elements are not always quantifiable. Social integration and cohesion, at the family, community or even broader levels, are almost always compromised by an escalating drug problem. Even though the number of drug-related deaths may not have reached epidemic proportions for countries as a whole, the nexus between drug abuse, acquired immunodeficiency syndrome (AIDS) and prostitution makes for a mushroom effect, endangering the health of much larger sections of the population. Even more important is the nexus between drug abuse and crime, with, for instance, half of all theft in some countries being directly drug-related. Illicit drug money plays an ever more important role for many insurgency movements and some terrorist groups around the world. The violence, corruption and fragmentation engendered by illicit drug abuse and trafficking weaken civil society and thereby strike at the very foundation of some nations.

# INTRODUCTION

## A. Legislative background

1. The present report is prepared in fulfilment of mandates originating in General Assembly resolution A/44/142 of 15 December 1989, in which the Assembly, inter alia, called for a study on the economic and social consequences of illicit traffic in drugs, with the assistance of a group of intergovernmental experts.

2. An Intergovernmental Expert Group met at Vienna from 21 to 25 May and 9 to 25 July 1990. It drew up the framework of a future study dealing with illicit markets and the production, distribution and consumption of illicit drugs, and adopted a set of recommendations that were presented to the General Assembly at its forty-fifth session (see A/45/535). The Assembly invited the Commission on Narcotic Drugs to consider the study outline and recommendations of the Expert Group. Because of the workload at its thirty-fourth session, the Commission could not complete its consideration of the item. It therefore invited the Executive Director of the United Nations International Drug Control Programme (UNDCP) to analyse the recommendations of the Expert Group and suggest possible follow-up action (see Commission on Narcotic Drugs resolution 7 (XXXIV) of 9 May 1991). The General Assembly, at its forty-sixth session, was apprised of the progress made (see A/46/338), and it reiterated its request to the Commission to consider the recommendations of the Expert Group at its thirty-fifth session (see Assembly resolution 46/103 of 16 December 1991).

3. At its thirty-fifth session, the Commission reviewed the recommendations of the Expert Group and the comments of the Executive Director thereon (see E/CN.7/1992/11). The recommendations addressed a wide spectrum of issues which can be subsumed under two headings: the general lack of reliable data required to determine the economic and social consequences of drug abuse and illicit trafficking; and measures which might be taken to address the problem of money-laundering. In his analysis, the Executive Director dealt with the recommendations in detail. It reported activities that UNDCP had undertaken or initiated in that regard, including: implementation of the International Drug Abuse Assessment System (IDAAS); attempts to improve UNDCP data on illicit traffic and precursors; and cooperative arrangements with the United Nations Research Institute for Social Development (UNRISD) and the United Nations University in their joint research project entitled "Socio-economic and political impact of production, trade and use of illicit narcotic drugs". In discussing the question of developing a reliable annual estimate of illicit drug production, distribution and consumption, the Executive Director noted that the Expert Group had underestimated the complexity and difficulty of the task.

4. The Commission concurred with the Executive Director that the problems related to data collection were extremely complex and would not be easy to solve.[1] Several members of the Commission expressed the wish that UNDCP should report, at the next session, on the progress of initiatives and activities in that context.

5. Progress was reported to the General Assembly at its forty-seventh (see A/47/378 and Assembly resolution 47/102 of 16 December 1992) and forty-eighth sessions. The Assembly recommended to the Commission that it consider including the issue of economic and social consequences of drug abuse and illicit trafficking as an item on its agenda (see Assembly resolution 48/112 of 20 December 1993). At its thirty-seventh session, the Commission decided that the subject could be addressed adequately in its general debate.

6. The present report therefore consists of two parts. The introduction, in addition to setting out legislative mandates, summarizes progress since 1992 on selected subjects identified by the Expert

Group. Those activities, though reported annually to the General Assembly, have not hitherto been reported to the Commission under the heading of economic and social consequences of illicit drug abuse and trafficking.

## B. Progress since 1992

7. A number of efforts have been undertaken in recent years to better understand the economic and social consequences of illicit drug production, trafficking and consumption, and to transform the accumulated information into policy relevant knowledge and more effective operational activity. The reinforcement of knowledge has taken place at two levels. At the general level, UNDCP has strengthened its data collection capabilities by identifying its own needs in the area of data collection. An economic research centre in North America assisted in carrying out the analysis, the results of which were gathered in a report entitled "Enhancing the role of UNDCP data collection and analysis".[2] Some effort has also been directed towards harmonizing drug-related data collected by other bodies and agencies within the United Nations system, as well as by the International Criminal Police Organization (ICPO)/Interpol) and the World Customs Organization (WCO). Progress in those and other related areas is described in more detail in the report of the Executive Director on the activities of the programme.[3]

8. UNDCP has launched major studies in two Asian countries, both of which are being finalized. They are serving as a model for a series of studies in some Asian and Latin American countries (in cooperation with the United Nations Development Programme (UNDP)) planned for 1995/96. The Rapid Abuse Assessment System, developed and launched by UNDCP in 1992, provides developing countries with a reasonably inexpensive tool to determine the specific social characteristics of their drug abuse problems. Similar initiatives have been undertaken by the World Health Organization (WHO) and the United Nations Interregional Crime and Justice Research Institute (UNICRI). Progress is documented in more detail in other reports before the Commission.

9. UNDCP has also organized technical consultations in which Governments and United Nations entities meet to exchange information, including on some aspects of the economic and social impact of drug abuse. Technical consultations are organized on the assumption that drug-related problems are driven by a wide range of economic and social factors, and thus, overcoming those problems requires different agencies and Governments to use their comparative strengths as part of a unified programme of action. By sensitizing other development-oriented organizations to the negative impact of illicit drug production, trafficking and consumption, the technical consultations also serve to raise drug control priorities higher on the global social and economic development agenda.

10. The role of the international financial institutions has long been recognized as crucial to the realization of a multidimensional drug control effort, with a view both to fostering social and economic development of areas affected by drug production and trafficking, as well as to restricting possibilities of money-laundering. UNDCP, therefore, continues its efforts to enlist the support of international financial institutions in tackling the economic and social consequences of illicit drugs.

11. The concept of "alternative development", which implies tackling drug problems with development-related tools, was further refined by UNDCP at two seminars in 1993, one held at Berlin and the other at Lima. That led to a major UNDCP/UNDP project in the Baalbek-Hermel area in Lebanon, which serves as a multisectoral model for the optimal division of labour to achieve alternative development objectives. It includes income generation based on improvements in licit crop cultivation, agricultural extension services, surface water and groundwater irrigation schemes, as well as the upgrading of health, educational and social services. UNDCP has also assisted Governments in

launching similar alternative development interventions in Bolivia, Colombia, Lao People's Democratic Republic, Pakistan, Peru and Thailand.[3]

12. UNDCP efforts in refining the concept of "debt-for-alternative-development swaps" began in July 1992, when it presented the concept at the Expert Group Meeting of the Conversion of Bilateral Assistance, sponsored by the United Nations Conference on Trade and Development (UNCTAD). The matter was further developed in informal consultations during a consultative group meeting for Bolivia sponsored by the World Bank, and held in Paris from 28 to 30 October 1992.[3] The concept involves the conversion of bilateral debt into local currency debt, with annual interest payments to be set aside for use for alternative development projects. In 1994, Argentina, Bolivia and Peru launched a subregional programme with UNDCP, designed to pool expertise in the countries concerned and to prepare concrete alternative development projects for debt swap negotiations between creditors and debtors.[4]

13. Finally, UNDCP has also proceeded with assisting several countries in developing master plans for drug control, trying to link drug control efforts systematically with the general development process. Progress is documented in other reports submitted to the Commission[3] (see also E/CN.7/1995/16).

## C. Sources of information

14. One caveat ought to be made at the outset. The present report is an interim survey of a complex issue, and attempts only to prepare the ground for more detailed investigations and regular periodic reviews. Assessing the economic and social consequences of drug abuse and illicit trafficking is a task that is necessary and yet fraught with difficulties. The necessity derives from the expansive and dynamic nature of the illicit drug problem, which all too often outpaces the capacity to understand its operation. The difficulties are inherent in the nature of the activity: it is illicit, making concealment a necessity for producers, distributors and consumers. Quite apart from this, there is no simple or proven set of indicators to measure the production, distribution and consumption of illicit drugs, far less their economic and social consequences.

15. The sources of the present report are thus as eclectic as its subject matter. The need to expand the information base for such conceptual initiatives is clear, for there can be analytical drawbacks in relying solely on official figures. When official statistics do not fully or accurately reflect drug-related trends, there is a case for cautious use of unofficial data - as long as any and all unofficial sources are clearly recognized and documented as such from the outset. Official sources can, in some cases, be anachronic, or focus more on the symptoms or effects of drug abuse and trafficking rather than the underlying causes. Furthermore, in most cases, official statistics focus mainly on country-level situations, and the cross-national dimension is not always discernible. The present report therefore uses, but clearly cites and documents, unofficial data where appropriate.

16. Drug abuse country profiles, prepared by UNDCP on the basis of replies submitted by Governments to the annual reports questionnaire,[3] have been used as input for the study. It should be noted, however, that the quality and timeliness of some of the official information provided by Governments leaves much to be desired. The response rate to the questionnaire is low, and has actually been declining over the last few years. That clearly restrains the capacity of the Secretariat to provide the Commission with a coherent and accurate global picture. The questionnaire response rates on illicit trafficking, for instance, declined from 65 per cent for the year 1987 to 45 per cent for the year 1992, with information only received in 1993 and 1994. The questionnaire response rate on issues regarding demand reduction fell from 62 per cent for 1987 to 37 per cent for 1992. Similarly, information on precursors provided through other questionnaires to the International Narcotics Control Board (INCB)

has been characterized by low response rates. By November 1993, only 44 per cent of the 196 countries requested had returned those questionnaires.[4]

17. The General Assembly and the Commission required that the findings of the UNRISD and United Nations University project, noted above, should be considered in the preparation of the present report. The project has now been completed, though at the time of writing, an initial survey[5] and only one of the nine expected country studies had been published.[6] Drafts of the unpublished studies were, however, made available by UNRISD, and have been used and cited as draft studies. An overview of the nine studies, prepared by the project coordinator, was also available as source material.[7] The present report also draws heavily on three papers recently prepared by UNDCP. Two of them were submitted to the second Preparatory Committee of the World Summit for Social Development, one entitled "The social and economic impact of drug abuse and control",[8] which was prepared as a position paper on behalf of the United Nations system, and the other, a discussion paper, entitled "Drugs and development".[9] The third paper, entitled "The present status of knowledge on the illicit drug industry",[10] was written at the request of the Subcommittee on Drug Control of the Administrative Committee on Coordination (ACC), and considered at its meeting at Vienna from 5 to 7 September 1994. Those three reports are available as conference room papers.

## I. EXTENT OF THE ILLICIT DRUG PROBLEM

18. Assessing the economic and social consequences of illicit drug abuse and trafficking implies, first, that some measure of the magnitude of the problem is available, and secondly, that there is some conceptual clarity about the nature of the consequences themselves. In the present state of knowledge, neither of those requirements is completely fulfilled. Estimates of the extent of illicit drug production, distribution and consumption vary enormously, and are often contingent upon the methodology and political orientation of the observer.[10] Work on setting international comparative standards for measuring economic and social consequences of drug abuse is only just beginning,* and, given the complex nature of the problem, will evolve slowly. Those reasons explain why the present report must be preliminary in nature, and why the discussion of consequences is preceded by an overview, in the rest of the present chapter, of selective data to establish the likely magnitude of the problem.

19. The illicit drug problem can, for analytical purposes, be divided into three categories: first, those illicit drugs that are either produced or processed from natural plant products, such as opium poppy - opium - morphine - heroin; secondly, synthetically made illicit drugs, such as amphetamines; and thirdly, psychoactive pharmaceutical drugs that become illicit as a result of being diverted from licit uses or purposes. The present report is concerned primarily with the first, and to a lesser extent with the second, category. The third category is not considered here, not because knowledge about it is scanty, but because its economic and social impact is quite different.

20. Establishing orders of magnitude about the extent of the problem should be done in the light of at least two unique characteristics of the illicit drugs: first, they are all addictive substances - a fact that sometimes blurs the dividing line between use and abuse, as well as between consumption and addiction; and secondly, as commodities that are traded or trafficked, they are distinguished by low volume, but

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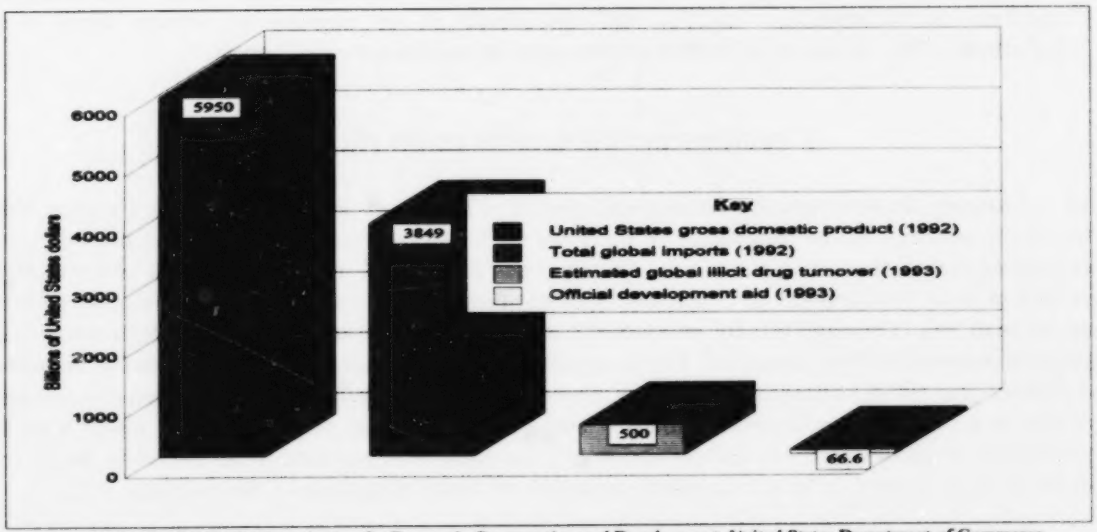
*The Canadian Centre on Substance Abuse initiated the first cross-national comparative project, and has begun a series of symposia on the subject. The proceedings of the first symposium, held at Banff, Alberta, Canada, in May 1994, are to be published as International Guidelines for Estimating the Costs of Substance Abuse.

enormously high unit cost and value. Against that background, one order of magnitude can be established by considering the annual turnover of the global illicit drug industry: conservative estimates range from 400 billion* to 500 billion United States dollars (US$) (see figure I). That would be equivalent to approximately one tenth (10 per cent to 13 per cent) of total international trade. It would be larger than international trade in oil, mineral fuels and lubricants, which together account for 9.5 per cent of total international (legal) trade, chemicals (9 per cent of international trade) or food, live animals, beverages and tobacco (also 9 per cent of international trade) (see figure II).** The turnover of the illicit drug industry would be nearly double the turnover of global pharmaceutical companies (assessed at $215 billion in 1993)*** and seven to eight times as large as the amount spent on official development assistance ($66.6 billion in 1993).

Figure I. World illicit drug trade
(Comparative international aggregates)



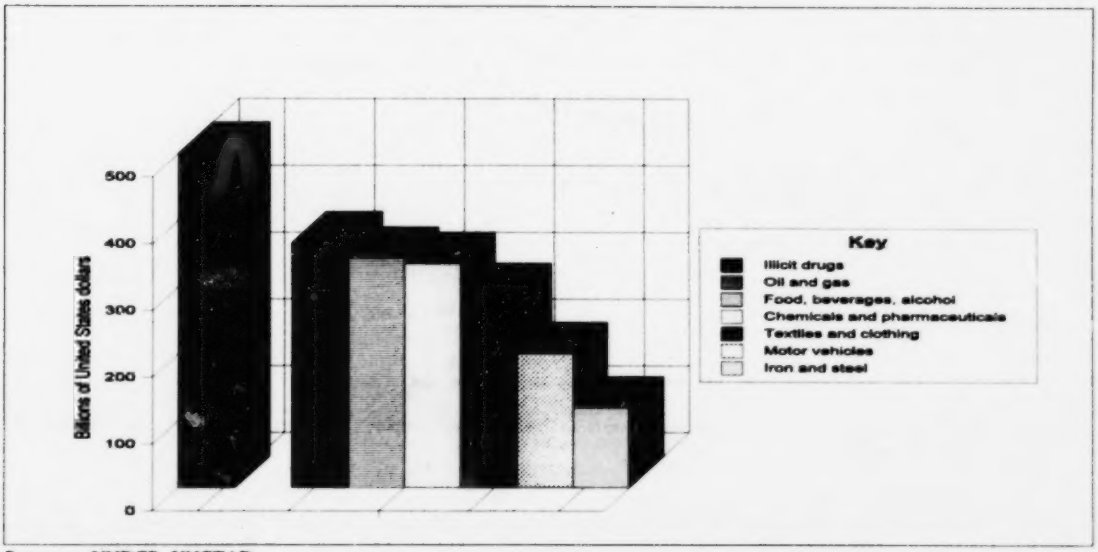

Sources: UNDCP, UNCTAD, Organisation for Economic Co-operation and Development, United States Department of Commerce.

*Data submitted by ICPO/Interpol to the International Narcotics Conference, organized by UNESCO in October 1994.

**Global imports in 1992 amounted to $3,849.4 billion. See International Trade Statistics Yearbook 1992 (United Nations publication, Sales No. E/F.94.XVII.3), vol. I.

***Database of the Institute for Medical Statistics, Vienna.

**Figure II. Importance of global illicit drug trade**
**Turnover of illicit drug trade and international trade (exports) in major commodities, 1992)**



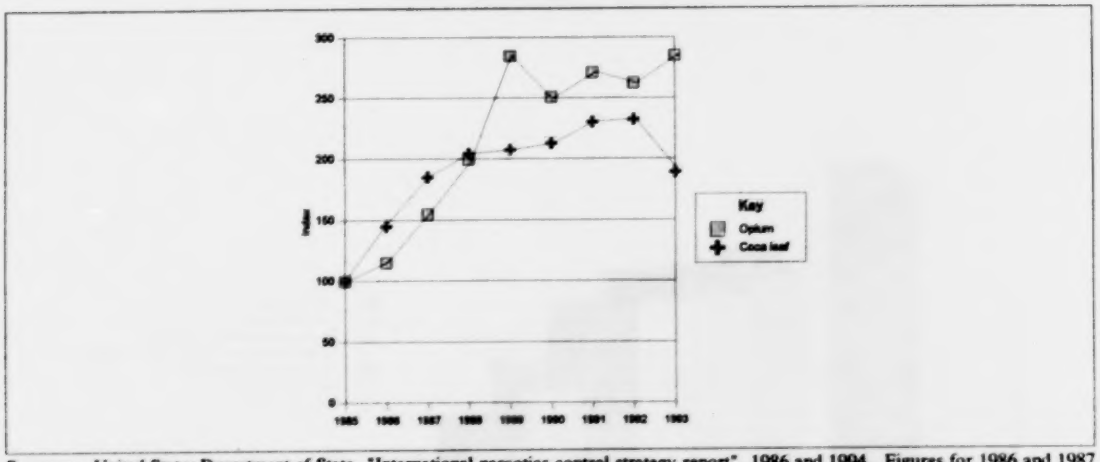

Sources: UNDCP, UNCTAD

## A. Production

21. There are no universally accepted figures on illicit drug production. Different methodologies, assumptions and political interests lead to very different estimates. Principal trends and magnitudes are nevertheless clear. Illicit drug production, on the global aggregate, is expanding (see Figure III). That general assessment subsumes different trends in individual illicit crops. Thus, global coca and cannabis production, after having risen dramatically in the 1980s, appear to be stagnating or falling in the 1990s; global opium production, by contrast, is still rising. Table 2 in annex I shows the trends from 1985 to 1993.

22. Illicit crop cultivation is concentrated in certain areas, but frequently shifts within and sometimes between subregions, and sometimes appears in areas where it was not previously given official cognizance. Most of the world's illicit opiates come from the countries of the Golden Crescent (Afghanistan, Iran (Islamic Republic of) and Pakistan), Golden Triangle (Lao People's Democratic Republic, Myanmar and Thailand) Lebanon and Mexico. Shifting production however makes countries like Colombia, or the central Asian republics of the Commonwealth of Independent States into relatively recent, or potential, major producers of opiates. Coca production, by contrast, is more concentrated, and the three Andean countries (Colombia, Bolivia and Peru) account for more than 98 per cent of the world cocaine supplies. Cannabis is produced in most parts of the world, but new areas such as the central Asian republics of the Commonwealth of Independent States, where previous production was undetermined, now show a potential to become major producers.

**Figure III. Trends in global production of opium poppy and coca leaf (1985 = 100)**




Sources: United States Department of State, "International narcotics control strategy report", 1986 and 1994. Figures for 1986 and 1987 are UNDCP estimates.

23. The overwhelming majority of illicit drugs consumed today are still plant products, or plant products that have undergone some semi-synthetic processes. According to a study[11] investigating consumption patterns of drug consumers in the United States of America in the early 1990s, the share of illicit drugs other than cocaine, heroin and marijuana, measured in terms of money spent (money is still the only common denominator available for such comparisons)* was 2.2 per cent in 1990 and 4.9 per cent in 1991. In other words, 95 per cent of the illicit drug market in the United States, and probably a similar magnitude would also be true globally, is dominated by traditional plant-based products.

24. Synthetic drug markets are, however, developing rapidly. Only the abundant global supply of natural plant-based illicit drugs seems to have - so far - prevented synthetic drugs from taking the lead. The principal synthetic drugs produced clandestinely are amphetamines and lysergic acid diethylamide (LSD). In addition, a number of other synthetic drugs have recently become popular, including methylenedioxymethamphetamine (MDMA), known as ecstasy, and methcathinone. With retail prices of synthetic drugs in developed countries rather low compared with the unit price of illicit plant-based drugs, and with the rapid spread of consumption of synthetic drugs among various sections of society, the overall importance of synthetic drugs is already much larger than the above-mentioned market share in illicit drug turnover would suggest (compare consumption data in figure VIII).

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*So far, only a few attempts have been made to define "average daily doses" of various illicit substances to derive a common unit of measurement. Such a common measure, once internationally accepted, would have the advantage of allowing for the exclusion of distorting price fluctuations in the analysis, and could better measure the relative importance of various drugs by taking into account their purity levels. The current practice of measuring various drugs merely in terms of quantity can be highly misleading for obvious reasons. Using the price as a common denominator entails a large number of other problems. For instance, increased supply can lead to falls in the price level, which may offset most of the quantity increases of a specific drug.

## B. Distribution and illicit trafficking

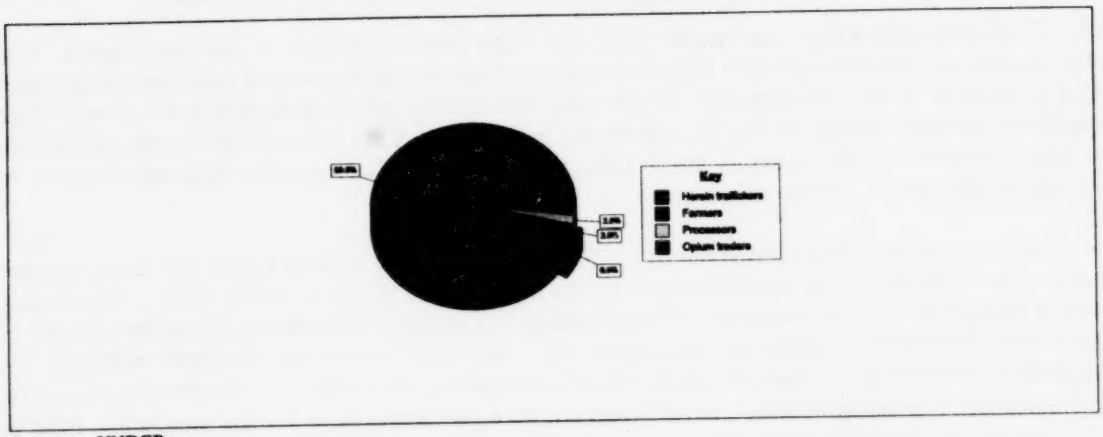
25. Illicit drug trafficking is the crucial link in the chain between production and consumption. It is also far and away the most lucrative stage in the process from the cultivation and processing of the illicit drug to the point of final consumption. In the many routes along which illicit drug traffic moves, there appears to be some spillage on the way, partly because of a tendency of traffickers to pay middlemen in kind. Several transit countries along trafficking routes are consequently showing evidence of increasing drug abuse and consumption.

26. The nine-country study carried out by UNRISD and the United Nations University draws together some of the evidence, in the comprehensive survey published at the outset of the project,[5] the country studies themselves and the overview of their findings. The latter finds several divergent patterns of illicit drug distribution, which are associated with: the level of activity (whether traffickers are wholesalers, middlemen or retailers); the degree of organization, for example, whether they have payrolls or enforceable "personnel policies", develop specialized departments, have vertical integration, build or struggle over regional or countrywide market shares; the type of drug marketed (for example, cannabis, cocaine, heroin or designer drugs); the existence of trafficker-insurgent-terrorist alliances; and the way organized traffickers compete for market shares.[7]

27. Individuals do not appear to be major players, and early analogies to a cottage industry now make little sense for the illicit drug trade. The trade has become increasingly organized, particularly at the production, wholesale, and middleman levels, pronouncedly so for cocaine and heroin, less so for marijuana. It tends to be controlled by organized groups, and in some cases cartels, often organized along ethnic lines to create stronger cohesiveness.[7]

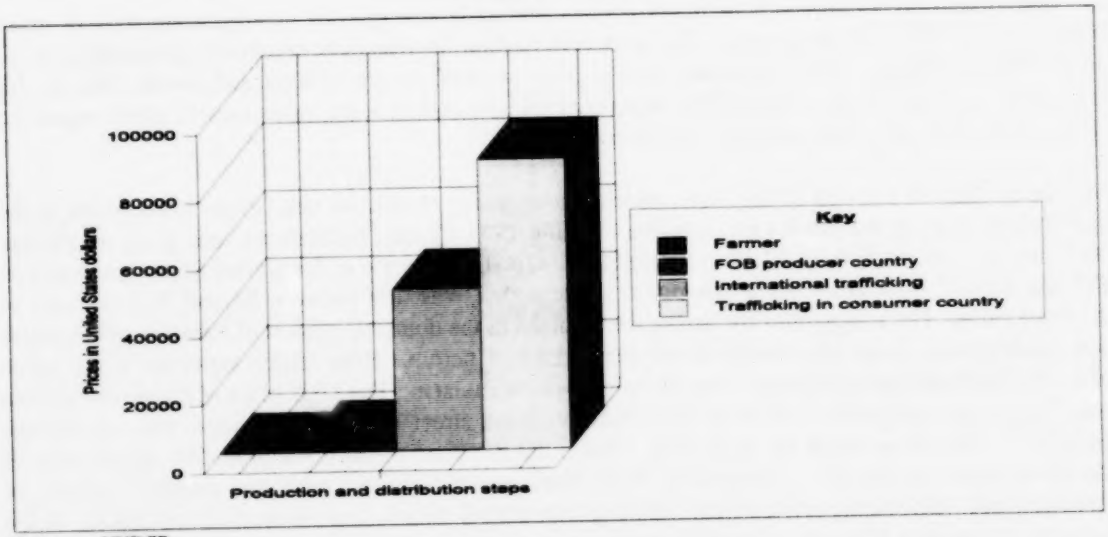
28. More than 90 per cent of the value added (gross profit) of cocaine and heroin is generated at the distribution stage of the illicit drug industry. Taking 1991 figures, for instance, one gram of 100 per cent pure cocaine retailed for $4.30 in Colombia;[7] its final retail price in the United States was between $59 and $297.[12] The gross profit margin, or value added, was thus between 93 and 98.5 per cent of the retail value. The magnitudes for heroin are similar. In the domestic market of Pakistan, wholesalers and retailers reap about nine tenths of the retail price of heroin. Even larger, however, is the value added by international trafficking when the heroin leaves Pakistan. The f.o.b. price of heroin in Pakistan was $3,333 per kilogram (1992/93); the retail price on street markets in Europe was on average $85,600.[13] The value added by trafficking outside the producer country was therefore 96 per cent of the retail price in Europe. Combining those huge profit margins under the general category of "international" trafficking conceals the fact that nearly half of the total value is in fact added in the national distribution networks of developed countries. For example, taking wholesale and retail prices for 1992 in eight countries (France, Germany, Italy, Netherlands, Spain, United Kingdom of Great Britain and Northern Ireland, Belgium and Portugal), the value added nationally was, on average, 47.5 per cent of retail prices for heroin, and 47.8 per cent for cocaine.[14] In the United States, the "value added" nationally was higher for both cocaine, 68.1 per cent of retail price, and heroin, 57.1 per cent of retail price (see figures IV and V).

Figure IV. Distribution of "value added" of heroin in producer country




Source: UNDCP

Figure V. Generation of "value added" of heroin in distribution network towards Europe



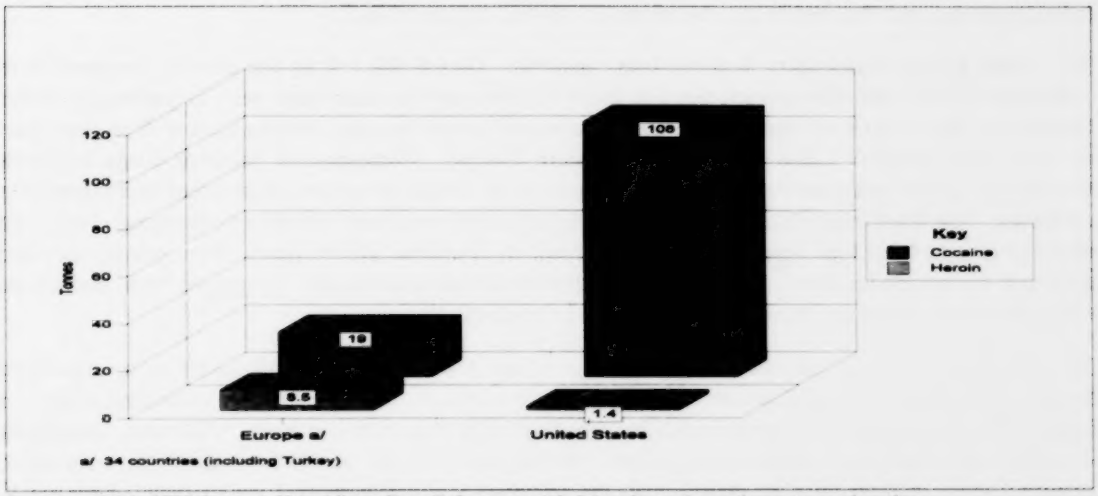

Source: UNDCP

29. Traffic patterns are determined, among other things, by drug type, country of origin and location and size of consumer markets. Cocaine trafficking begins in the Andean region and spreads northward, with North America and Europe as the principal final destinations. The 108 tonnes of cocaine seized in the United States in 1993 alone would have had a street value of $10 billion to $20 billion,[15] larger than the individual gross national product (GNP) of more than half of the countries in the world. A further 19 tonnes (1993) were seized in Europe (34 countries; see figure VI).* The route of distribution goes from the Andean countries through Central America, Mexico and the Caribbean region, although alternative routes through South America (Argentina, Brazil), Africa and Europe (partly eastern Europe) have also become popular. Nevertheless, some 50 to 70 per cent of total United States cocaine

*Combined database of UNDCP, ICPO/Interpol and WCO.

imports transit through Mexico, which, in confirmation of the spillage phenomenon noted above, is beginning to show signs of increasing cocaine consumption.[16]

Figure VI. Seizures in 1993
(Tonnes)




Sources: WCO, ICPO/Interpol, United States Drug Enforcement Administration and annual reports questionnaires.

30. In 1993, 8.5 tonnes of heroin were seized in Europe (34 countries), compared with 1.4 tonnes in the United States (see figure VI).* Most of Europe's heroin originates in South-West Asia, which provided for almost 90 per cent of Europe's heroin demand in 1992/93. Heroin trafficking for North America, by contrast, largely originates in South-East Asia, which provides about two thirds of North American demand, with the rest coming from Colombia, Mexico and South-West Asia.[17] Most heroin processing takes place close to the point of origin. The route of distribution to North America involves countries and areas such as China, Hong Kong, Malaysia, Thailand and, increasingly, African countries for transshipment purposes. The route of heroin smuggling from South-West Asia to Europe largely goes through Pakistan, Islamic Republic of Iran and Turkey and along the Balkan route (which accounts for 80 to 90 per cent of all heroin seizures in Europe),[17] although smuggling through the Central Asian States of the Commonwealth of Independent States is becoming popular. Opening borders between East and West in Europe facilitated contacts and communication which were also used by drug traffickers, increasing the number of transit routes for drugs and the markets for drug consumption.[8]

31. In the present state of knowledge, it seems that, in contrast to illict plant-based drugs, trafficking of clandestinely manufactured synthetic drugs is more of an intraregional activity, with interregional trafficking limited to precursors for the production of such drugs.

*Combined database of UNDCP, ICPO/Interpol and WCO.

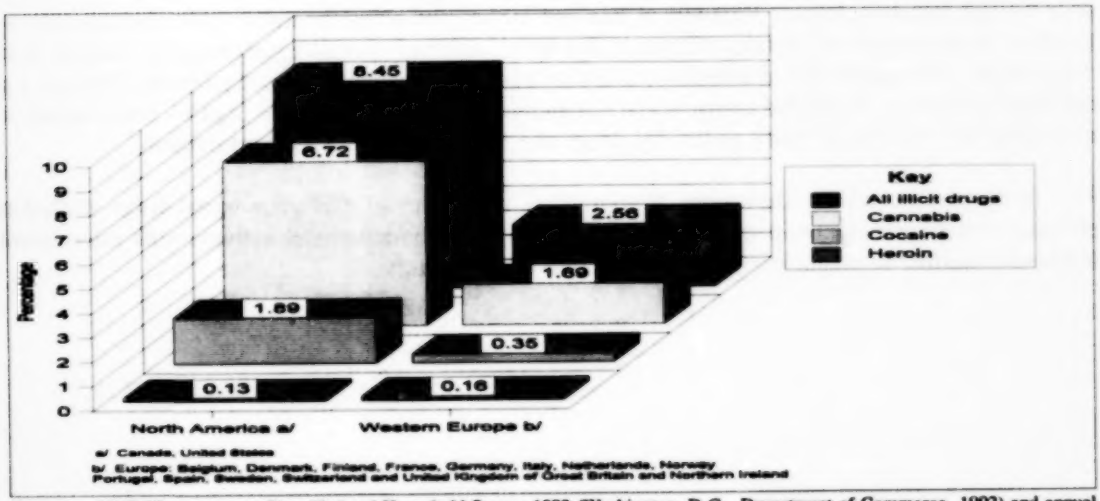
## C. Consumption

33. There is little substantive information gathered on an international basis on the extent of illicit drug consumption. That is not necessarily attributable to data collection systems. Methodologically sound surveys of the incidence, prevalence and frequency of illicit drug use are primarily local studies. At the national level, they are few and far between, and in international terms, they are at an early stage of development. That is primarily due to the fact that national systems for estimating consumption are heterogeneous, and the results are therefore not always comparable.[10]

34. Some general assessment is nonetheless possible. Global illicit drug use clearly increased in the 1980s and 1990s, and this upward trend is likely to continue for some time yet. In particular, eastern Europe and the countries of the CIS are noting increased usage; so, also, is Africa, as well as many parts of Asia, some parts of Latin America and western Europe. Consumption of illicit drugs looks like becoming a global phenomenon, no more confined to the status of a demand problem in industrialized countries. The traditional distinction between supplier and consumer countries is breaking down. The developing countries that produced, but tended not to consume, illicit drugs, are showing increased domestic consumption, often of more modern rather than traditional drugs: bazuco in Peru, Bolivia and Colombia; and heroin in Myanmar, Pakistan and Thailand.

35. The largest single consumer of illicit drugs in the world, however, still seems to be the United States, with some 11.4 million current drug abusers (1992).[12] Europe follows in second place. In figure VII, drug abuse in North America is compared with drug abuse in western Europe. An attempt is made to establish some orders of magnitude, but the figure should be treated with all the reservations required when dealing with an enormously heterogeneous and fragmented set of data. Leaving the heavy consumption of cannabis in the United States apart, the data in figure VII shows very clearly that the drug problem in the United States is largely one of cocaine abuse. Even reports of fast rises in heroin consumption in the United States since 1992/93 - which is not yet reflected in the data below - will not change the picture substantially. The abuse of cocaine (crack) in the United States is much more common than in Europe, although cocaine also seems to have emerged in Europe as the most widely abused illicit plant-based drug after cannabis. Heroin abuse seems to be marginally higher in Europe than in the United States.

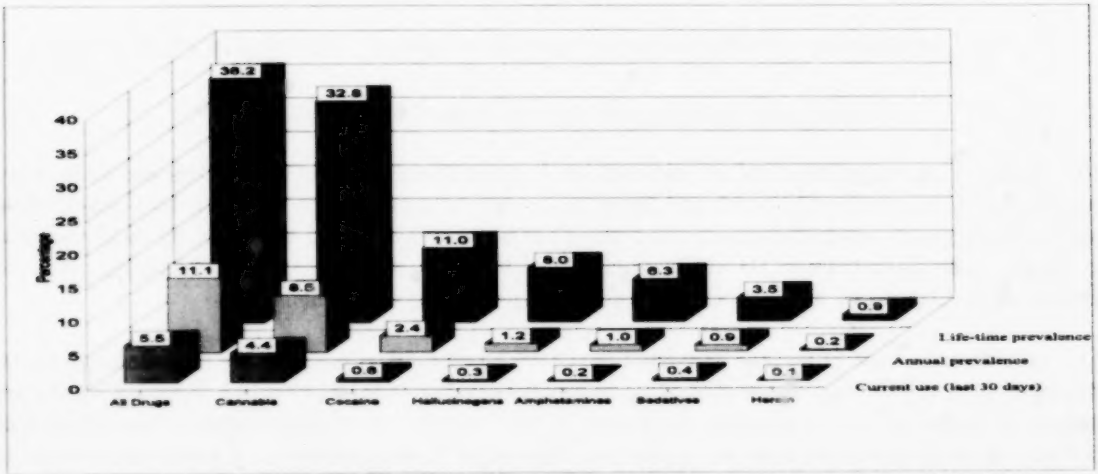
Figure VII. Annual prevalence of illicit drug abuse
(Percentage of total population, 1991/92)




Sources: UNDCP country profiles, National Household Survey 1992 (Washington, D.C., Department of Commerce, 1992) and annual reports questionnaires.

35. Although some countries in East Asia (such as the Philippines and Japan), as well as a large number of countries in Latin America, report already alarming levels of abuse of clandestinely manufactured synthetic drugs, most illicit consumption of synthetic drugs still seems to take place in developed countries. In many developed countries in Europe and in Australia and the United States, the prevalence of abuse of synthetic drugs (including hallucinogens, amphetamines and sedatives diverted from licit trade) is already higher than that of heroin and cocaine combined. The example of the United States given in figure VIII shows that such is the case for both life-time prevalence, annual prevalence and current use.

Figure VIII. Prevalence of illicit drug abuse in the United States
(Percentage of population > 12 years (1992))




Sources: National Household Survey 1992 (Washington, D.C., Department of Commerce, 1992) and annual reports questionnaires.

36. In addition to magnitudes of consumption, some general, and very tentative, assessments about characteristics of abusers are possible. Illicit drug abuse is centred among men, although it is reported to be increasing among women. In general, however, women seem to gravitate towards the abuse of legal, socially acceptable substances and prescription drugs. The results of many studies indicate that the abuse of licit drugs is in fact more common among women than men.[18]

37. Although illicit drug abuse prevails among all age groups, it is most frequent among young adults. Most abusers are in the 15-to-35 age group, though there is a concentration within the 18-to-25 age group. The employed have significantly lower rates of drug abuse than do students and unemployed persons of the same age. Married people are less likely to abuse drugs than are single, separated or divorced persons. Prison populations show a high incidence of drug abuse.

38. In general, member States report, in the annual reports questionnaire, that drug abuse is stronger in urban settings. Many also report the emergence of a frontier abuse pattern (Chile, China, Ecuador, India, Mexico, Pakistan, Thailand etc.). Rural drug abuse is associated with traditional consumption (opium in Asia, coca leaves in Latin America) and older abusers. In Asia, addiction rates are highly correlated with access to opium production and trafficking areas; in Latin America, that is far less the case with cocaine.[7]

39. Cannabis appears to be abused by people from all social classes. In developing countries, traditional abuse of opiates appears common among the very poor. By contrast, abuse among college students is positively related to family income.[19] Opium and heroin consumption in middle- to high-income countries in South-West and South-East Asia is often associated with the lower income groups. In least developed countries (such as Myanmar) heroin consumption seems to be more strongly correlated to abusers coming from a wealthy urban background with better education (almost half of all students at Rangoon University are reported to have experimented with heroin), while opium abusers are from rural low-income groups. For cocaine in Latin America, the picture is even less clear. Cocaine appears to be abused, in some countries, by people from all social classes (Argentina, Bahamas and Venezuela), while in others it is primarily abused by those of high socio-economic status (Bolivia, Ecuador, El Salvador, Mexico, Peru and Uruguay).[20] Amphetamines appear, in general, to be frequently abused by the middle and upper classes.

## II. ECONOMIC CONSEQUENCES OF DRUG ABUSE AND TRAFFICKING

### A. Costs and apparent "benefits" of drug abuse and trafficking

40. While the apparent "benefits" of consumption for drug abusers tend to be transient and are quickly superseded by a considerable health and financial burden on society, there are doubtless considerable profits for suppliers and traffickers of illicit drugs - a fact that is revealed so clearly by their readiness to operate in the illicit markets. It will be argued later, however, that producer and trafficking countries tend to pay a high social and political price for short-term economic gains.

41. Although the bulk of income generated out of drug purchases remains in the consumer countries, the small share of less than 10 per cent going to producer countries is large enough to have a significant impact on some of their economies. Estimates of the "benefits" of the operations of the illicit drug industry to the economy of Bolivia suggest that they might have amounted to a gross value added of $0.7 billion, equivalent to 15 per cent of GDP (1989)[21] according to Government sources, with some other estimates for the late 1980s showing even higher figures.* Of this, roughly $280 million was retained by factors of production in Bolivia. Therefore, the actual contribution of the industry to the economy, according to United States sources, was an estimated 6 per cent of GDP. With coca prices falling and the overall Bolivian economy expanding, the annual "benefits" seem, however, to have fallen back to $120 million by 1993, equivalent to just 2 per cent of GDP.[22] Magnitudes similar to those of Bolivia in the late 1980s would appear to apply to Afghanistan, which is one of the world's largest opium-producing countries. The estimated "benefits" of the illicit drug industry in Peru, the world's largest coca producer, although higher in absolute terms than in the case of Bolivia, seem to be lower in relative terms, ranging from 2 to 11 per cent of GDP (1988).[23] With far lower coca production, but much more processing and trafficking, the "benefits" of the coca economy in Colombia are estimated to range from 3 to 13 per cent of GDP (1991).[7] In the case of Pakistan, the illicit opiate industry appears to have a lesser magnitude, accounting for a value added equivalent of some 4 per cent of GDP (see figure IX).[13]

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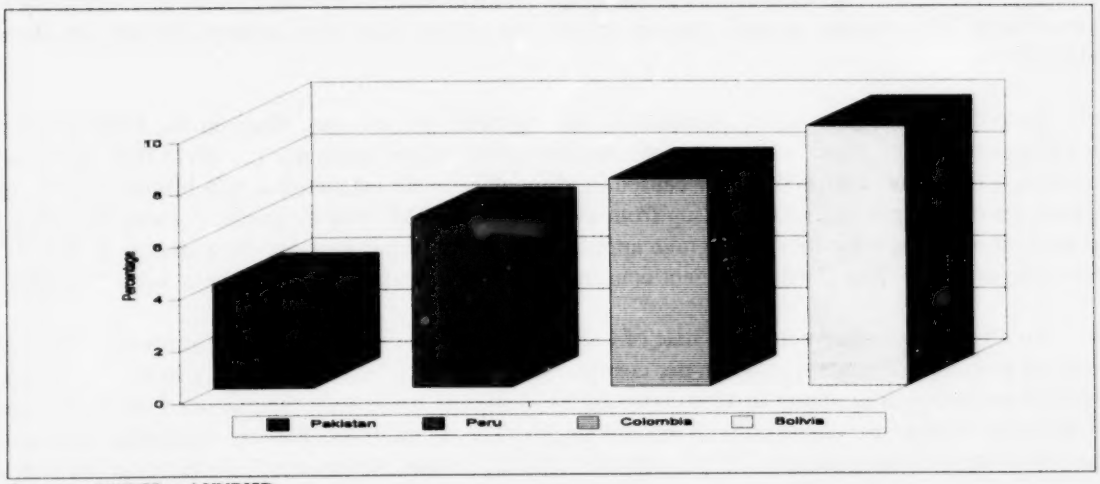
*According to other sources, the size of the illicit drug industry in Bolivia is thought to have reached $1.4 billion, that is, almost 30 per cent of gross domestic product in 1987, and fluctuated around 20 per cent in the following years. See UDAPE, Bolivia, Estratégia de Desarrollo Alternativo (1990, quoted in Beatriz Cristina Muriel Hernández, "Aspectos reales y monetarios de la economía de la coca, una aproximación a la teoría de la enfermedad holandesa", thesis submitted at the Catholic University of Bolivia, La Paz (1994), p. 1.

Figure IX. Apparent "benefits" of illicit drug industry
(Income generation in per cent of gross domestic product)




Sources: UNDCP and UNRISD

42. Many of the apparently beneficial economic effects resulting from production and trafficking of illicit drugs are, however, not quite as advantageous to the countries concerned as might prima facie appear. A number of producer countries have started to suffer from what is generally known as "Dutch Disease",* resulting in stagnation or even contraction of other, non-drug-related sectors, making their economies even more dependent upon just one illicit commodity. Especially in those areas and countries (such as Bolivia or Peru) where no vertically integrated illicit drug industry has been built, drug traffickers show up at irregular intervals to buy the farmers' illicit drug crops, thus frequently creating boom and bust cycles in the local economies.[7]

43. Few comprehensive and internationally comparative studies have been undertaken to measure the costs of drug abuse to society.[24] Although figures differ from country to country, depending upon methodology and political orientation, magnitudes can only be assessed by highlighting some of them.

44. The costs of drug abuse (including both licit and illicit substances) have been calculated to be equivalent to 4.6 per cent of GDP in Australia (1992), with illicit drug abuse accounting for 0.5 per cent of GDP.[19] Similarly, an investigation conducted in the United Kingdom and commissioned by the European Community found that identifiable costs of drug trafficking and abuse amounted to 1.8 billion pounds sterling (£)[25] in the United Kingdom in 1988, equivalent to some 0.5 per cent of GDP. Of that amount, about 85 per cent was the value of stolen property, clearly identifying crime as the most important side-effect of drug abuse. Other major cost categories were the value of drug law enforcement and legal costs (8.9 per cent), prison costs (4.9 per cent) and government prevention, care and

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*"Dutch Disease" implies market distortion, as a result of an extraordinary boom of one isolated sector, and consequent stagnation in core sectors of the economy, as experienced by the Netherlands in connection with large North Sea oil and gas exports in the late 1970s. In the classic scenario, the unexpected boom of one sector of the economy (such as illicit drug production) leads to an increase in the real exchange rate, thus preventing diversification of the economy, endangering the operations of export-oriented and import-substituting industries. For a detailed analysis using the Bolivian example, see Beatriz Cristina Muriel Hernández, "Aspectos reales y monetarios ...".

rehabilitation costs including treatment of patients with drug-related human immunodeficiency virus (HIV) or AIDS (1.8 per cent). Not included in those calculations were the costs of premature mortality, loss of earnings and reduced productivity. With estimates of some 130,000 to 150,000 hard-core abusers, the average annual costs to society per addict were thus around £13,000, or about $23,100.*

45. According to another set of calculations, the economic cost of drug abuse in the United States, including emergency room visits and other medical costs, higher incidence of HIV/AIDS, increased criminal activity and lost productivity caused by drug abuse were estimated at $76 billion in 1991, or approximately 1.3 per cent of GDP,[26] up from $44 billion in 1985. The economic costs of drug abuse in the United States were thus on average approximately $6,670 per year per drug abuser, or $28,100 per year per heavy drug abuser (frequent consumers of heroin and cocaine of once a week or more).

46. Another study carried out in the State of California found that alcohol and drug abusers, in the year prior to entering a treatment programme, cost the tax payer $3.1 billion per year, that is, on average $22,800 per heavy drug abuser in 1991[27] (the figure is slightly lower than the one cited above because of the lower average per capita costs of alcohol abuse). The figure of $22,800 can be broken down into the following cost components: 55 per cent for criminal justice system costs; 26 per cent for stolen property losses; 17 per cent for health and productivity losses to victims of drug-related crime; 17 per cent for costs of health care for the drug abuser; and 8 per cent for welfare and disability payments. If lost earnings are included (drug abusers earned, on average, 60 per cent less than expected earnings for their age and gender), the losses to society amount to $4.4 billion, or $32,200 per drug and alcohol abuser. Assuming that wages reflect net productivity, this means that almost half of the losses to society are due to the inability of the drug addict to earn a decent income.** Although the health care costs, at $3,200 per person, are a rather small component of overall costs to tax-paying citizens or to society at large, it is worth noting that average annual health expenditures for similar gender and age groups in the United States population average about $1,800, suggesting that the health bill of drug abusers is almost 80 per cent higher than that of an average citizen in the same age group.

## B. Work, employment and productivity

### 1. Influence of drugs on productivity

47. Drug abuse seems to occur most frequently among young people in the 15-to-35 age group, with a particular concentration in the 18-to-25 age group. It thus includes those who have entered or who are just about to enter the workforce. Given high unemployment rates in many countries, entry into the workforce is often a major problem. Consumption of illicit drugs limits chances to enter or remain in

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*Converted at the 1988 average exchange rate of: 0.562 pounds sterling = $1.

**This is based upon the somewhat controversial assumption that jobs necessitating higher qualifications cannot be filled because of widespread substance abuse in society. With the number of drug abusers still below 5 per cent in most countries and unemployment often over 5 per cent, there is generally no shortage of workers, but a shortage of jobs. More generally, if there is high unemployment, the productivity loss as a result of substance abuse by any individual may be insignificant, because the prematurely "retired" or deceased can be replaced by workers who otherwise would be unemployed. For a more detailed discussion, see D. J. Collins, H. M. Lapsely, "Issues and alternatives in the development of a drug abuse estimation model", paper presented at the International Symposium on the Economic and Social Costs of Substance Abuse, held at Banff, Alberta, Canada, in May 1994, p. 12.

the workforce, while frustration from failure to find adequate employment favours drug consumption, creating a vicious circle.

48. The 1993 national household survey carried out in Colombia, for instance, showed that the annual prevalence of illicit drug abuse was highest among those who had no work (4.1 per cent), while it was three quarters less for workers (1.1 per cent). For cocaine specifically, the prevalence rates were 4.1 per cent for the unemployed, and only one tenth of that (0.4 per cent) for the employed.[28]

49. A study carried out more than a decade ago in California, but probably still valid today, found that "disruptive use of all drugs was significantly correlated with ... loss of job during the past four years, loss of job in the past six months, increased trouble with job, increased vandalism at work, and increased seeking of ... advice ... for a work problem".[29]

50. A more recent study carried out by the International Labour Organisation (ILO) and the European Community, which examined drugs and alcohol in the workplace in European countries, found that more than half of the interviewed employers' associations, enterprises and workers' organizations reported specific performance impairments and absences from work as a result of drug- and alcohol-related problems. In about two out of five cases, organizations saw themselves forced to dismiss employees for drug- and alcohol-related reasons, clearly showing the severity of the problem.[30] A study involving 2,000 members of the workforce in Alberta, Canada, found that 1 in 16 reported using drugs, mainly marijuana, in the past 12 months.[31]

51. A study on the relationship between drug abuse and job performance in the United States Postal Service confirmed that pre-employment drug-taking correlates positively with absenteeism and involuntary separation. It concluded that by introducing pre-employment drug testing for new applicants, the Postal Service could reduce absenteeism to the general level of non-drug-users, and save some $100 million over a three-year period.[32]

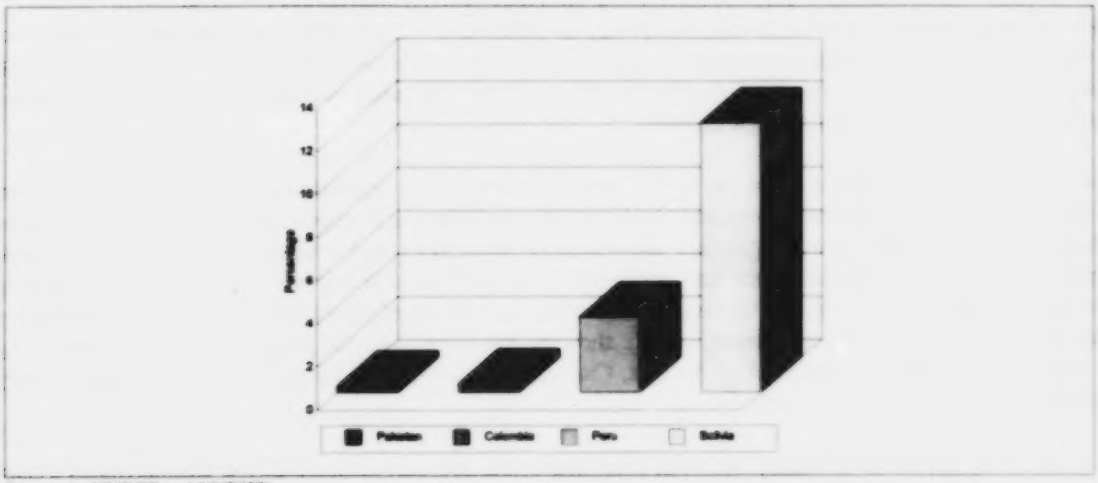
52. In general, the effect of drugs on productivity is a function of the type and quantities of drugs consumed, as well as of the performance requirements of the jobs in question. Tasks that require higher-level judgement, constant attention, immediate memory and fine motor skills are obviously more easily disrupted by drugs than mere physical labour. The more developed a society, with more jobs of the above-mentioned type, the more vulnerable it becomes to drug abuse. At the same time, societies - irrespective of their current level of development - will find it extremely difficult to advance if they have to rely on a workforce that is impaired by large-scale drug abuse. It should also be emphasized that the less the chances for drug abusers working in a legal field, the more likely they are to move into illegal activities, including drug trafficking, and their reintegration into society will become more difficult.

## 2. Generation of employment

53. While illicit drug abuse affects labour markets by reducing productivity, it also generates some employment in the drug-producing countries, although this is less than generally believed. Employment generated by opium production covers less than 1 per cent of the labour force in Pakistan.[13] It is only in the two major opium-producing countries, Afghanistan and Myanmar, that the share might be expected to be higher. Information available on coca suggests that the share is small in Colombia (0.4 per cent of the economically active population), rather high in Peru, and particularly high in Bolivia. In Peru, between 2.4 and 4.5 per cent of the economically active population is involved in activities related to the coca industry.[7] In Bolivia, estimates range from 120,000[33] up to 463,000 people, if the thousands of people involved at least once a year in harvesting, transporting and distributing the coca paste are included.[34] One source estimates 150,000 (8.2 per cent of the economically active population

in 1990) and another estimates 300,000 people (16.7 per cent of the economically active population in 1990) to be directly involved in the coca industry,* of which some 85 per cent work on the cultivation of coca leaves, 13 per cent on processing them, and only 2 per cent on trafficking them (see figure X).

Figure X. Illicit drug industry as "employer"
(Percentage of economically active population)




Sources: UNDCP and UNRISD

54. The employment-generating effect of the drug industry has been best demonstrated in Bolivia. Computer simulation models suggest that a 10 per cent increase in coca and cocaine production in Bolivia increases GNP by 2 per cent and lowers unemployment by about 6 per cent.[33] Thus, the five peasant federations representing coca-producing farmers have become one of the strongest political pressure groups in the country, and advocate legalizing coca production and preventing currently licit coca production from being declared illicit.[6] Some jobs are also created in industries supplying the coca and cocaine producers, including industries that supply precursors. In the mid-1980s, more than half of total national toilet-paper production was used in the Chapare area as a filtering agent in coca paste and cocaine processing, and provided jobs for some 2,000 people, who produced, transported and sold it.[6]

55. Trafficking, especially on the retail side, also tends to be labour-intensive. Furthermore, and somewhat paradoxically, the drug problem also generates employment in the enforcement, health and social service sectors. Such employment is unproductive, in so far as it would not be necessary if the drug problem did not exist in the first place.

56. The existence of illicit drug money, and the need to launder it, militates against rational and optimal resource allocation in a market system. Drug money is invested in areas where the origin of funds can be best disguised, often favouring precisely those sectors of an economy that are characterized by low productivity, thus creating new, unproductive jobs, or preventing such jobs from disappearing. There are, however, contrary examples. The land counter-reform in Colombia, where drug capitalists bought up land (as in the Middle Magdalena Valley), led to a massive concentration of ownership and

*Estimates cited in Tullis,[7] p. 197.

the introduction of new labour-saving technologies, actually reducing the workforce and prompting people to either migrate to coca farming areas or join guerilla groups.[7]

## C. Prices and income

### 1. Determinants

57. In contrast to other commodities, prices of illicit drugs primarily reflect the perceived level of risk. Prices and profits in the illicit drug industry are not proportional to factor costs, but seem to be proportionately related to the risks and the degree of monopoly at each stage of production and marketing.[7] Heroin and cocaine prices in Europe through the 1980s and early 1990s have shown a surprisingly strong correlation and behaviour in tandem, suggesting that perceived risks (probably due to the degree of success or failure of law enforcement) were indeed the major factor determining the prices,[14] with price changes of the drugs in supplier countries having had only minor influence on retail prices in Europe (see figures XI, XII, XIII and XVI).

58. Given such market structures, some authors conclude that profit margins are not directly related to input factor costs. Thus, a price increase in the early stages of the chain (due, for instance, to crop eradication) would only marginally increase final retail values, and would not lead to the cumulative price hikes that might be expected if fixed percentage mark-ups were the common form. This suggests that law enforcement efforts are most productive at the final stages of the chain, close to the consumer.[35] The proposition, however, is still open to debate and further research.

### 2. Price elasticity

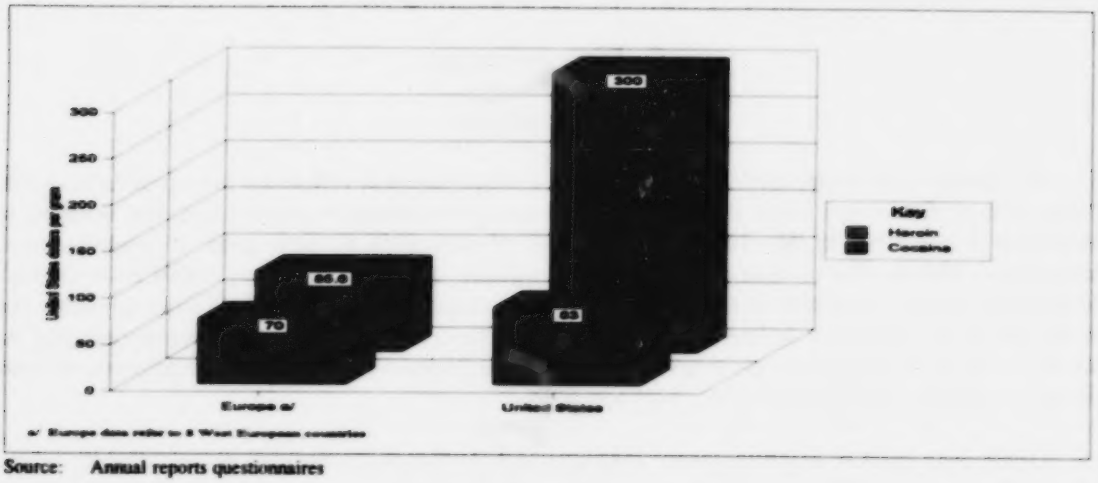
59. The price elasticity of illicit drugs is a crucial issue, not merely for assessing the economic consequences of drug abuse, but also for assessing the impact of interdiction efforts, many of which are based on the assumption that higher prices will reduce consumption.

60. The question, then, is whether the consumption of illicit drugs - like that of most other goods and services - decreases in response to rising prices and increases in response to falling prices. Most studies suggest that price elasticities may be small, but they do exist,[36] even though the addition of another variable, such as a successful preventive education campaign, may reduce demand and thereby cause prices to fall, without the falling prices resulting - as might be expected - in more consumption. This seems to have been the case with marijuana and cocaine in the United States during the second half of the 1980s and the early 1990s.[12]

61. There appear to be only a few illicit drug price elasticity studies which have tried to systematically eliminate the several other variables that influence drug consumption. A frequently cited study on marijuana, dating back to the early 1970s in the United States, suggests that marijuana may be strongly price-elastic, with elasticity ranging between -1.0 and -1.5.[37] Another old study in the United States estimated elasticities for heroin to be in the range of -0.21 to -0.38.[38] This suggests that demand becomes progressively less elastic, or more inelastic, as the addictive nature of the substance increases.

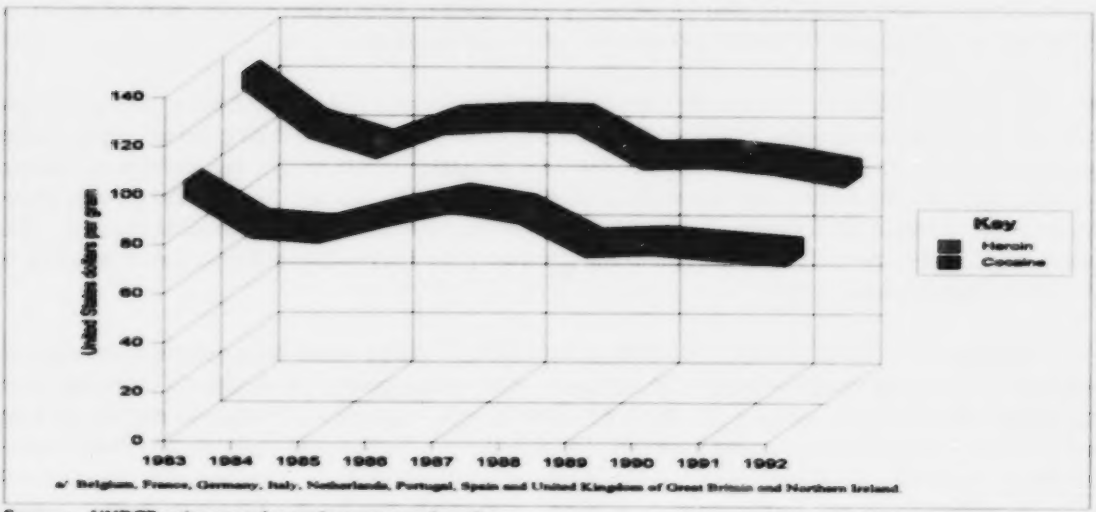
62. Those results are in contrast to another study which argued, in the mid-1980s, that given that average expenditures on marijuana were a small proportion of disposable income, demand for marijuana was close to inelastic at existing price levels (0-0.5 per cent). Only a massive increase in prices could be expected to have a significant impact upon demand levels. Demand for cocaine by contrast, although less elastic in the short run, was assumed to become moderately elastic in the long run. That result

**Figure XI. Average retail prices in 1992**



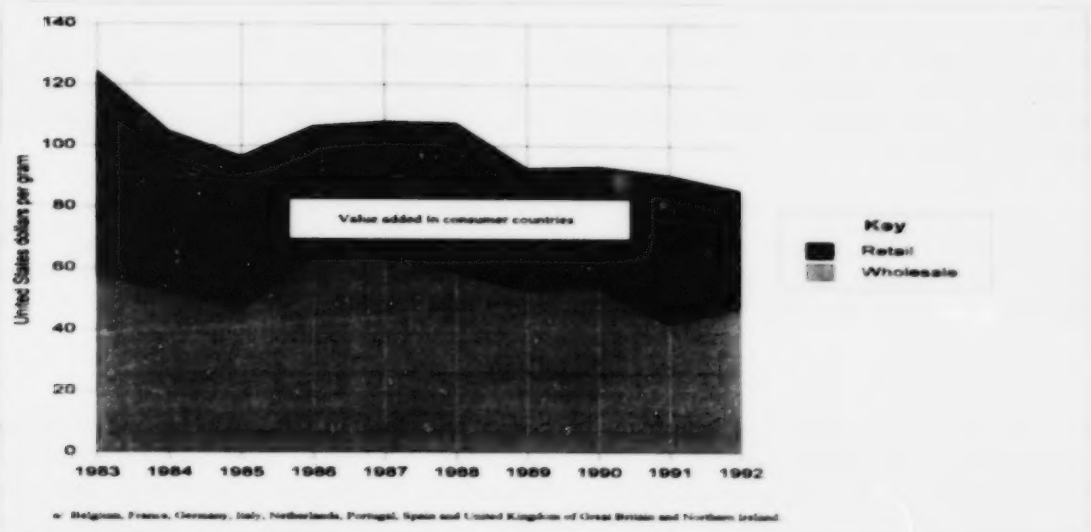

Source: Annual reports questionnaires

**Figure XII. Retail prices in Europe**
**(Average of eight western European countries)a/**




Sources: UNDCP estimates and annual reports questionnaires

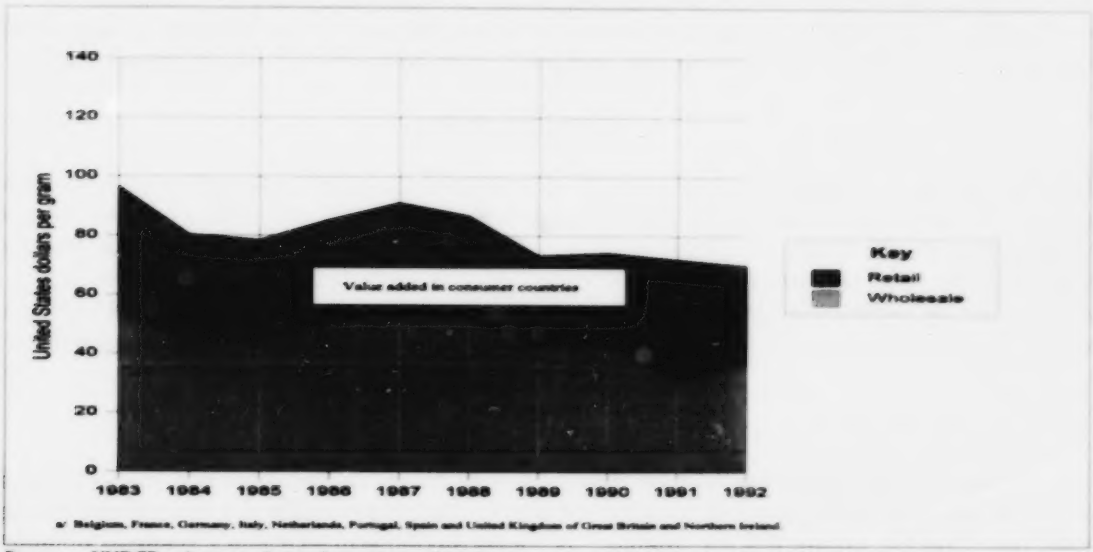
Figure XIII. Heroin prices in Europe
(Average of eight western European countries)[a]




a/ Belgium, France, Germany, Italy, Netherlands, Portugal, Spain and United Kingdom of Great Britain and Northern Ireland.

Sources: UNDCP estimates and annual reports questionnaires

Figure XIV. Cocaine prices in Europe
(Average of eight western European countries)[a]




a/ Belgium, France, Germany, Italy, Netherlands, Portugal, Spain and United Kingdom of Great Britain and Northern Ireland.

Source: UNDCP estimates and annual reports questionnaires

would be in line with the Becker and Murphy model of "rational addiction" (1988), which predicts that demand for illicit drugs, while inelastic in the short term, can be expected to become more elastic in the long term.* That seems plausible because higher prices may deter potential new entrants to the market, but may not immediately affect the behaviour of persons already addicted. In the case of heroin, since it tends to take a large share of the total budget of regular users - some of whom have to remain criminally active to maintain their consumption levels, but are not able to expand criminal activity indefinitely - price increases might lead to almost proportional reductions in their intake, suggesting a high price elasticity of close to -1 for heavy heroin users.[35]

63. In cases such as that of Pakistan, where the price of heroin on the domestic market is very low compared to developed countries, calculated price elasticities are not statistically significant.[13] The reason, again, appears to be that the low prices of illicit drugs (heroin in the present case) do not represent any serious monetary barrier for potential new drug recruits.

### 3. Inflation

64. The impact of the illicit drug industry on the general price level in both producing and consuming countries tends to be neutral, although there are some exceptions. Reports from Afghanistan and from Bolivia suggest that real costs of foodstuff have increased as a consequence of more drug cultivation, with people unwilling or unable to integrate into the coca or opium poppy economy facing further impoverishment.[7]

65. A frequent scenario in producer countries is that drug income is either deposited abroad or used for legal and illegal luxury imports, which does not affect the local price level. If the drug industry has an impact, it is rather on dampening inflationary pressures, as drug abusers are left with less money to spend on their daily subsistence needs. The major exception to this is real estate, which often tends to be a prime target of the beneficiaries of the drug industry, leading to rapidly rising real estate prices, and crowding out other sections of the population. That, for instance, seems to be currently the case in Myanmar. In Colombia, the massive amount of money "earned" by the Medellín group was also largely invested in land, thereby driving up land prices from about $500 to $2,000 per hectare.[39]

### 4. Income distribution

66. The question of income correlates strongly with the production and consumption patterns of illicit drugs. As noted above, the largest incomes generated in the illicit drug industry come from the distribution networks in the developed countries. Concrete evidence from Pakistan[13] and anecdotal evidence from other producer countries with some domestic consumption suggest that the impact of illicit drugs on income distribution is U-shaped, or, more precisely, in the form of a reversed J curve.** In many countries, the lowest income groups show a higher than average consumption of

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*Other deduced hypotheses from the Becker-Murphy model are that the long-run price elasticity as well as the ratio of the long-run to the short-run price elasticity is higher for those with a stronger addiction. See G. Becker and K. Murphy, "A theory of rational addiction", Journal of Political Economy, No. 96 (1988), pp. 675-700.

**In Pakistan almost half (48 per cent) of all drug users were amongst the poorest quintile (20 per cent) of the population. The second income quintile accounted for 21 per cent, the third quintile for 15 per cent, the fourth quintile for 4 per cent and the richest quintile for 12 per cent of all drug users. See "The illicit opiate industry of Pakistan ...".

drugs. Among the middle classes, illicit drug consumption tends to be below average, but rises again among the higher income groups, although remaining below that of the lower income groups. Sociological explanations of that phenomenon usually derive from generic arguments about the frustrations of poverty and the boredom of affluence. Given the hierarchical structure of the illicit drug industry, the largest profits are concentrated among a rather small number of people. Indeed, drug farmers often operate under rather competitive market conditions and thus earn relatively little. The number of participants declines, and profits increase, along each stage of the refining or preparation process, until, at the top or wholesale level, a few sellers control most of the industry.[7] Both consumption and production thus tend to increase existing income disparities in society.* Such disparities, perhaps more than poverty by itself, are often considered to be a precondition for drug abuse, creating something of a vicious circle.

## D. Trade and balance of payments

67. The implications of the illicit drug industry on the balance of trade and of payments of a producer country, if viewed in static terms, tends to be positive. Drug exports generate much-needed foreign exchange. One source estimated the value of the coca and cocaine exports of Bolivia to be between $0.4 billion and $0.6 billion in 1990.[7] Given total legal exports worth $0.92 billion in 1990,[40] this would mean that coca and cocaine exports were equivalent to half the size of total legal exports.[7] More recently, however, the share of illicit drugs, as a proportion of both GDP and total exports, appears to have declined.[22] Illicit drug exports from Pakistan are estimated to have been around $1.5 billion (1992), of which heroin is thought to have accounted for about $1.3 billion.[13] However, given the much larger economy of Pakistan and exports of $7.3 billion in 1992, the overall importance, at about a fifth of total exports, was much less.

68. During transition periods under conditions of structural adjustment, inflows of foreign exchange from drug exports have - in the short run - beneficial effects on the economies concerned, mitigating some of the hardship associated with structural adjustment programmes. In Bolivia, for example, the export-oriented coca and cocaine industry managed to absorb much of the large labour force that lost jobs as a result of a structural adjustment programme that led to a closing down of the unproductive mining sector.[6] Foreign exchange inflows from illicit drug exports may, however, maintain inflationary expectations, and eventually prevent nominal interest rates from falling, thus forcing the Government to prolong the initial and most difficult phase of structural reform, and leading to some crowding-out of the legitimate business sector.[41]

69. Apart from the capital inflows that result from drug exports, outright capital inflows of drug profits generated elsewhere also play an important role in a number of countries. Such drug funds, however, tend to be extremely volatile, reacting quickly to changes in the political and judicial environment, thus making Governments de facto hostage to international drug money. Such criminal financial flows often turn out to be beyond the traditional macroeconomic control instruments of government. With illicit

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*Similarly, the UNRISD and United Nations University studies also concluded that "Any GNP, foreign exchange, or investment increases for the national economy that derive from the illegal drug trade must be interpreted in light of their tendencies to concentrate income and wealth ..." (see Tullis, p. 170);[7] and "The astonishing upshot ... is that far from destabilizing the old social order that legitimated a highly skewed distribution of wealth and property, the drug trade has reinforced it. The cocaine barons have become the new rich, simply replacing the old coffee oligarchy that evolved in the late nineteenth century" (see Tullis, p. 180).[7]

drug funds available, money demand will be much less responsive to interest rate changes than would otherwise be the case.

70. When considered in dynamic terms, the long-term negative effects of the illicit drug industry seem to be clear. Countries operating under conditions of flexible exchange rates will see themselves confronted with overvalued exchange rates, often running large licit trade deficits, and will forego the chance to develop profitable alternative export industries,[6] even further increasing their dependence on illicit drug exports over time ("Dutch Disease"). In the case of Bolivia, the overvalued exchange rate resulting from the influx of dollars generated by drug trafficking, for instance, prevented the local leather and textile industries from developing in the face of cheap imports from Brazil and Chile.[7] For countries operating under some kind of fixed exchange rate arrangement, the problem is that otherwise necessary realignments will be delayed. For countries operating under a fixed exchange rate regime with an already adequately pegged currency, the consequences are likely to be a rising domestic inflation rate, unless offset by capital flight.

## E. Finance and investment

### 1. Funds for laundering

71. The Financial Action Task Force estimated that in the late 1980s, sales of cocaine, heroin and cannabis amounted to approximately $122 billion per year in the United States and Europe, of which some 70 per cent, or $85 billion, was considered available for laundering and investment.[42] United Nations estimates, based on cash flows from international banking and capital account statistics, suggested that up to $300 billion per year could have been available for laundering in the late 1980s.* Even though that figure might have been on the high side at the time, it has probably been surpassed by now. If it is accepted that the annual total global turnover of the illicit drug industry is about $500 billion, that is, about 10 times the value of the illicit drug market of the United States (approximately $50 billion), then some $350 billion per year is probably available for laundering in the 1990s. Most estimates indeed range between $300 billion and $500 billion.**

72. While global illicit drug funds - although far from negligible - are still modest compared with the overall size of the economies of developed countries, they are extremely large if compared with the economies of many developing countries. Even the lowest estimate of $85 billion would make the drug money for laundering larger than the individual GNPs of three fourths of the 207 economies of the world.[8] In contrast, taking the highest estimate of $500 billion, drug money for laundering would be equivalent to about a tenth of the GNP of the United States, or some 3 per cent of the combined GNP of the member countries of the Organisation for Economic Co-operation and Development (OECD).

73. Whatever the actual magnitude, there is little doubt that drug-related criminal finance has already reached significant proportions. One of the most striking examples is Colombia. Hearings conducted by the United States Senate revealed that drug-related revenues in Colombia in the late 1970s were

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*However, this figure was qualified as "suspect" (probably too high) by the Intergovernmental Expert Group to Study the Economic and Social Consequences of Illicit Traffic in Drugs (see E/CN.7/1991/25, p. 25).

**But since the late 1980s no serious attempt seems to have been made to recalculate and update the figures on money-laundering. In some publications, the overall size of the drug industry is already assumed to be larger and thus also the money available for laundering (see "Present status of knowledge ...",[10] pp. 26-28).

estimated to have been equivalent to almost 20 per cent of domestic money supply.* Between 1975 and 1989, between $39 billion and $66 billion (that is, on average $2.8 billion to $4.7 billion per year) of drug-related funds are estimated to have flooded into Colombia, which, given the size of the economy of the country, is very large. The total gross private fixed investment of Colombia averaged just $2.8 billion per year between 1976 and 1986, suggesting that illegal businessmen had the capacity to invest an amount as large as what official data attribute to the whole private sector of the country.[7]

### 2. Savings

74. Despite the large sums mentioned above, it appears that the impact of the illicit drug industry on domestic savings is minimal in most countries, and perhaps even slightly negative. That is rather surprising, in view of the traditional pattern that the redistribution of income from low- to high-income groups actually increases the overall savings rate. In the case of illicit drugs, the already low savings of the poorest sections of society tend to be used up for drug consumption purposes. Income generated by high-income groups out of the drug business, is not, however, simply deposited in domestic savings accounts, but is laundered, often outside the country concerned, or is used for arms purchases, conspicuous consumption, frequently observed increases in alcohol consumption and rapidly growing expenditure on prostitution.[7]

### 3. Investment

75. Investment, which in a wider context includes human capital formation, is jeopardized by an illicit drug industry, because resources that could be spent on education and health are wasted on drugs instead.[13] Even productive investment, in the traditional sense, does not appear to be particularly attractive for drug traffickers. In Colombia, for instance, the Medellín cartel concentrated its investment in real estate and the construction sector.** Once the construction boom drew to a close, however, the city of Medellín suffered economic setbacks and high unemployment because little alternative productive investment had been made. In Bolivia, drug money was invested in entertainment, television and radio stations and at least one soccer club, which may have been acquired in order to influence people in favour of traffickers.[6] Moreover, import businesses were opened for money-laundering purposes. Reports from countries such as Canada and the United States, where significant parts of the receipts are also laundered, indicate that investment of drug money is often found in small, cash-rich businesses that have no need to issue large numbers of official bills. Companies controlled by "drug equity" may thus continue to operate, for a prolonged period, as loss-makers, undercutting market prices and distorting competition.

76. Once the level of drug-related violence increases, as has been the case in a number of developing countries where drug mafias concentrate their activities,*** legitimate enterprises start to liquidate their investments and send their capital abroad. Dirty capital may replace clean capital, but, as noted

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*Illegal narcotics profits hearings conducted by the Senate Committee on Governmental Affairs, quoted in Pino Arlacchi, Mafia Business: the Mafia Ethic and the Spirit of Capitalism (London, Verso, 1986), p. 22.

**This has been mirrored in rapidly rising real estate prices as well as in the fact that while the official constant value mortgage system declined by about 20 per cent in the late 1980s, the total licensed construction area increased by 14.6 per cent, which means that drug barons did not have to go to the banks to solicit construction loans. See Tullis,[7] p. 175.

***In Colombia, there were apparently some 2,000 sicarios (teenage contract killers) in the late 1980s, with the price of killing a person declining to just $13 on average. See Tullis,[7] p. 180.

above, dirty money operates far less productively. The social ethic of many of the new drug capitalists who have legitimated their money has not always been conducive to sustainable economic growth. Efforts to suppress drug trafficking and related violence increase police and military budgets, crowding out government investment in infrastructure, education and health. The illicit drug industry has often been a catalyst for the delegitimation of the State. The environment for direct foreign investment worsens as the security situation deteriorates and the weakening of the judicial system makes the resolution of civil disputes increasingly difficult. Uncertainty promotes an investment focus on short-term profits, compromising long-term growth. Even though the drug problem does not appear, by itself, to be high among the risk factors for foreign investment, it has a significant impact on the risk factors (such as insurgency, terrorism, land disputes, social violence and corruption) rated highest by foreign investors.

77. A special danger, emerging in countries that aim at rapid privatization of State-owned assets (as in most of eastern Europe), is that those assets become a target for criminal finance. This tends to undermine the foundations of the State and of a market economy. The paradox is that privatization takes place in order to increase efficiency, but, if criminally financed, can turn out to be extremely inefficient from a wider long-term economic perspective. Criminal finance often leads to a parasitic, anti-competitive approach to business.[41] The criminal enterprise operates in response to stimuli that may be quite distinct from those of legitimate enterprises. In particular, there is the ability to use intimidation as a kind of non-tariff trade barrier.[43] Violence may be used to eliminate competition and lead to monopolistic behaviour in price-setting policy. Elimination of rivals will add to the market share and profitability of the aggressor.[44] Once the ability to coerce is recognized by local competitors, even expenditure on open violence is no longer necessary. Another competitive advantage is the ability to repress wage rises by discouraging wage-related protest. Finally, access to financial resources for enterprises with dirty equity is facilitated.[45] Thus, once established in the business community, firms with criminal ownership have a structural advantage in expanding their market share.

78. Even worse, such developments can subsequently change public perceptions. In Colombia, for example, some reports suggest that as much as 30 per cent of the wealth of the country is already in the hands of drug traffickers. The Cali drug cartel was estimated to have stakes in more than 500 legal businesses, including pharmaceutical companies. Criminal involvement there has led to one crucial yet rarely noted development: the perceptions among some sections of the public have changed in favour of criminal investors, who are seen to bring prosperity to the communities they infiltrate.[41]

### 4. Macroeconomic management

79. With large amounts of illicit drug money invested in an economy, macroeconomic management becomes extremely complicated. It is difficult at the best of times, and with large-scale drug funds circulating in an economy, it becomes an almost impossible task. Particularly when economic policy changes (such as austerity measures to curb inflation and diversify the export base) are necessary, drug funds tend to counteract government actions, either by preventing expectations to adapt, by prolonging the time-frame for macroeconomic stabilization, or by prompting Governments to take drastic measures, thus creating unemployment and social unrest.[41] The UNRISD studies have shown that money from drug trafficking has distorted many national fiscal and monetary policies. With so much extraordinary capital from the drug trade competing with funds from the normal informal economy, drug money has introduced many more macroeconomic distortions than central banks have been able to handle. Macroeconomic impacts have been felt on foreign exchange flows, aggregate demand and inflation, and indeed on economic growth in general.[7]

## III. SOCIAL CONSEQUENCES OF DRUG ABUSE AND TRAFFICKING

### A. Family and community

80. There is a vast literature on how the rapid social, economic, and technological changes that are characteristic of the present age influence families and communities. Much of the literature is qualitative and descriptive in nature. While there are doubtless many links between its findings and problems of drug abuse, exploring those links is beyond the ambit of the present report. Many of the issues germane to the relationship between drug abuse and families are summarized in two recent position papers prepared by UNDCP[a] and WHO,[45] and the following discussion only points to a few directions for further investigation.

81. Fragmented families appear to be related, in one way or another, to problems of substance abuse. In Mexico, for example, the country study carried out by UNRISD and the United Nations University shows that illicit drug abuse correlates more strongly with disintegration of the family than with poverty.[16] Similarly, the country study carried out by the same bodies on the Lao People's Democratic Republic found that in areas where social controls exercised by the family and the community had broken down, opium and heroin consumption spilled over to young men, women and children, touching as much as 10 per cent of the population.[46] The Thailand country study in the same series attributes increasing use of heroin and psychotropic substances to urbanization, rapid cultural change and a breakdown in family cohesion.[47] The relationship could also work the other way, with substance abuse straining family relations and ultimately making families dysfunctional, transforming them from an asset into a burden on society.

82. Although families have a powerful influence on shaping attitudes, values and behavioural patterns of children to prevent substance abuse, peer groups often prove to have an even stronger influence.[48] The negative influence of peers appears to increase when parents abdicate their traditional supervisory roles. Family factors thought to lead to, or intensify, drug abuse include prolonged or traumatic parental absence, harsh discipline, failure to communicate on an emotional level as well as parental use of drugs. Lack of household stability triggered by low and irregular income and employment conditions may increase the stress on the family and its vulnerability to drug abuse, opening a wide field for possible government action to reduce such vulnerability.

83. While the family itself can be the origin of drug problems, it can also be a potent force for prevention and treatment. Family therapy has gained increased acceptance, with the defining characteristic being the simultaneous involvement of more than one member of the family in therapeutic sessions. Most families are supported and cared for by women. They frequently have the key role in teaching the young, ensuring that health care is provided, and maintaining links with and mobilizing community support when necessary. Recognition and effective utilization of women as resources for drug prevention and treatment can improve efforts to reduce both the supply and demand for drugs.[49] Indeed, the family unit as a whole has a clear interest in preventing individual family members from falling prey to drug abuse, and thus becomes a potentially powerful ally of government and community prevention programmes.

### B. Health

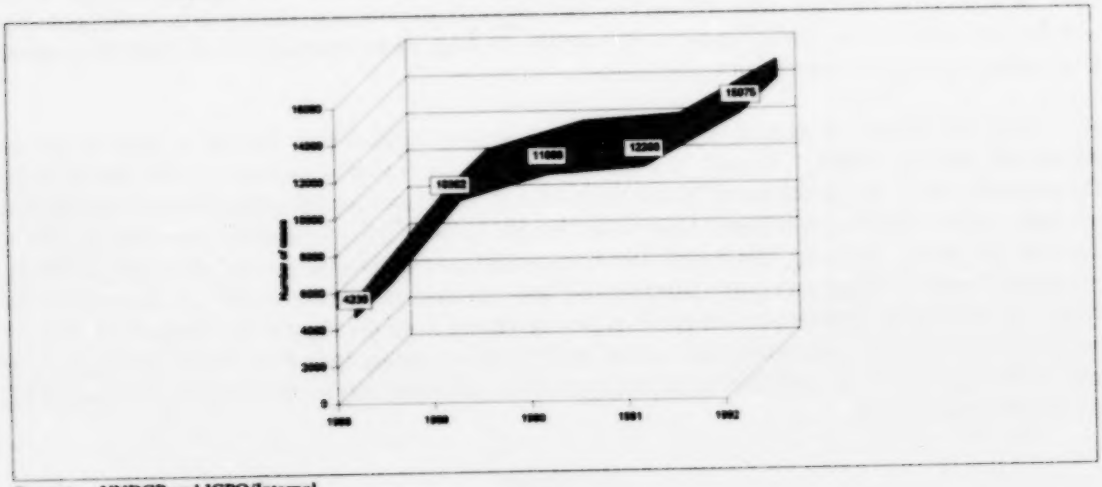
84. The negative impact of drug abuse on health is manifest, scientifically well established, and documented in a vast literature which is beyond the purview of the present report. Table 1 provides a useful summary, showing the toxic effects and addiction risk of the major psychoactive drugs, licit as well as illicit, and the following discussion only emphasizes a few key issues. In the United States alone

drug-related emergency room visits amounted to 434,000 in 1992, up from 404,000 in 1988, clearly demonstrating the magnitude of the drug-related health problem for both the addicts concerned as well as for society at large, which is burdened with the drug-abuse-related health costs.[12]

85. Substances most commonly associated with drug-related deaths are cocaine, heroin and other opiates, barbiturates, amphetamines and amphetamine derivatives. Substances such as benzodiazepines, hallucinogens and cannabis - depending on the dosage - have a negative impact on health, but are usually not directly associated with death, although they may be associated with fatal accidents.

86. Though the mortality risk of illicit drugs is a matter of concern, it should be noted that the existing drug control mechanisms (prevention, education and law enforcement), although not able to prevent substance-abuse-related-mortality (SARM), do seem to have prevented the actual number of SARM cases from reaching the levels that are currently experienced with abuse of licit psychoactive substances. While alcohol and tobacco account for nearly 5 million deaths per year,[50] estimates of drug-related deaths of injecting drug users (IDUs) amount to 200,000 cases per annum globally. Officially reported cases of SARM are significantly lower, amounting to 15,000 cases globally in 1992 (see figure XV). However, because of the lack of adequate reporting in a large number of countries, there is a bias towards underrepresentation in those figures. Given an estimated global drug injecting population of 5.3 million, the ratio of drug-related death to drug injecting population - using the estimate of 200,000 deaths of IDUs -is some 0.4 per cent.[51] With official United States estimates of the size of the illicit drug-abusing population of 12.4 million during the 1990-1992 period and the number of SARM cases at around 6,000 per year over the same period the drug related mortality rate in the United States actually was at 0.05 per cent. Relating the number of deaths to hard-core abusers (those using drugs at least weekly - some 2.7 million people in the United States in 1991), the drug-related mortality rate amounted to 0.2 per cent of hard-core abusers in the United States. Those figures suggest that while serious health problems of drug abusers are the rule, drug-related death still seems to be the exception.

Figure XV. Global development of substance-abuse-related mortality




Sources: UNDCP and ICPO/Interpol

Table 1. Toxic effects and addiction risk of major illicit and licit psychoactive substances[a]

| Drug category | Acute toxicity | Chronic toxicity | Relative risk of addiction |
|---|---|---|---|
| Cocaine, amphetamines | Sympathetic overactivity: hypertension, cardiac arrhythmias, hyperthermia; acute toxic psychosis: delusions, hallucinations, paranoia, violence, anorexia | Paresthesias, stereotypy, seizures, withdrawal depression, chronic rhinitis, perforation of nasal septum | 1 |
| Opiates | Sedation, analgesia, emotional blunting, dream state; nausea, vomiting, spasm of ureter and bile duct; respiratory depression, coma, synergism with alcohol and sedatives; impaired thermoregulation; suppression of sex hormones | Disorders of hypothalamic and pituitary hormone secretion, constipation, withdrawal cramps, diarrhoea, vomiting, gooseflesh, lacrimation and rhinorrhea | 2 |
| Hallucinogens (LSD, PCP) | Sympathetic overactivity; visual and auditory illusions, hallucinations, depersonalization; PCP only: muscle rigidity, hyperpyrexia, ataxia, agitation, violence, stereotypy, convulsions | Flashbacks, depression, prolonged psychotic episodes | 3 |
| Cannabis (marihuana, hashish) | Psychomotor impairment; synergism with alcohol and sedatives | Apathy and mental slowing, impaired memory and learning (brain damage?), impaired immune response[b] | 4 |
| Nicotine | Nausea, tremor, tachycardia; high doses: hypertension, bradycardia, diarrhea, muscle twitching, respiratory paralysis | Coronary, cerebral and peripheral vascular disease, gangrene, gastric acidity, peptic ulcer, withdrawal irritability, impaired attention and concentration, retarded fetal growth, spontaneous abortion[b] | 2 |
| Alcohol and related drugs (benzodiazepines, barbiturates) | Psychomotor impairment, impaired thinking and judgement, reckless or violent behaviour; lowering of body temperature, respiratory depression | Hypertension, stroke, hepatitis, cirrhosis, gastritis, pancreatitis,[c] organic brain damage, cognitive deficits, fetal alcohol syndrome,[c] withdrawal effects: shakes, seizures, delirium tremens | 3 |
| Caffeine | Cardiac arrhythmias, insomnia, restlessness, excitement, muscle tension, jitteriness, gastric discomfort | Hypertension, anxiety, depression, withdrawal headaches | 5 |

Source: Avram Goldstein and Harold Kalant, "Drug policy: striking the right balance", Science, 28 September 1990, p. 1514.

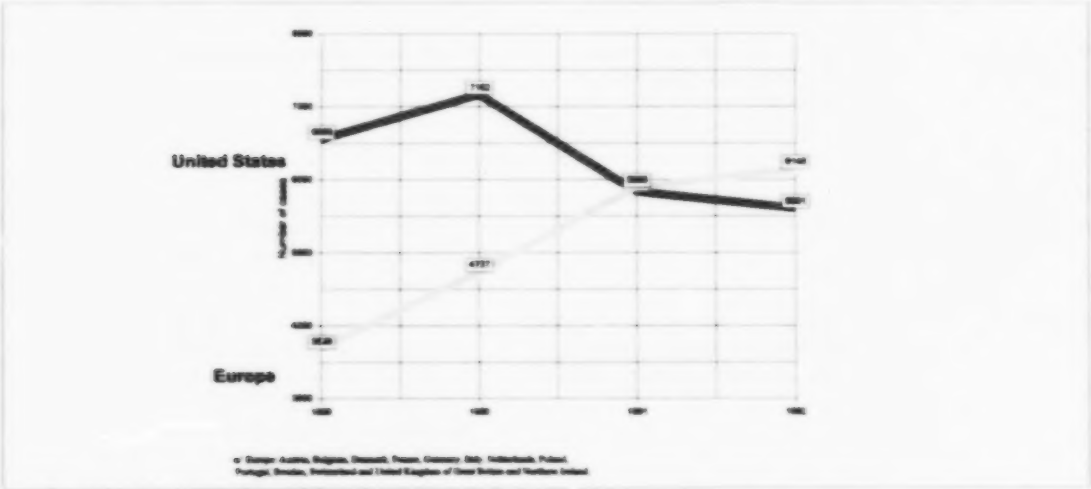
[a] Listed here are effects due to the drugs themselves. As the effects are dose-related and subject to individual variation in sensitivity, not all are expected to be seen in every user. Approximate rankings for relative risk of addiction are on a five-point scale, where 1 is most severe.

[b] Bronchitis, emphysema, precancerous changes, lung cancer, pulmonary hypertension, and cardiovascular damage by carbon monoxide are consequences of smoking tobacco or marijuana, not due to the respective psychoactive drugs. Inhalation of smoke by non-smokers is also a significant hazard. With equivalent smoking, these chronic toxic effects occur sooner with marijuana than with tobacco.

[c] These effects result only from alcohol, not benzodiazepines or barbiturates.

87. The dramatic increase of SARM in recent years (see figure XV), has become a matter of public policy concern. From the mid-1980s to the early 1990s (see figure XVIII in annex II for specific dates and magnitudes), cases of SARM increased by a factor of six in Germany and Spain, and a factor of five in Austria and Italy. They tripled in Belgium, France and Switzerland, increased by more than one half in the United Kingdom, and, in contrast to the rest of Europe, remained stable in the Netherlands. Reports from the Russian Federation suggest that SARM increased by a factor of four, from 484 to 2,036 cases between 1991 and 1992, making it the country with the world's second largest SARM rate, after the United States. In Poland, SARM increased by about 50 per cent between 1989 and 1992. In countries and areas outside Europe, strong increases were reported, for instance, from Hong Kong, Japan and Saudi Arabia. The only country reporting a falling SARM rate between 1989 and 1992, from 6,556 to 5,601 cases, was the United States (see figure XVI).[52]

Figure XVI. Substance-abuse-related mortality, United States-Europe[a] (1989-1992)

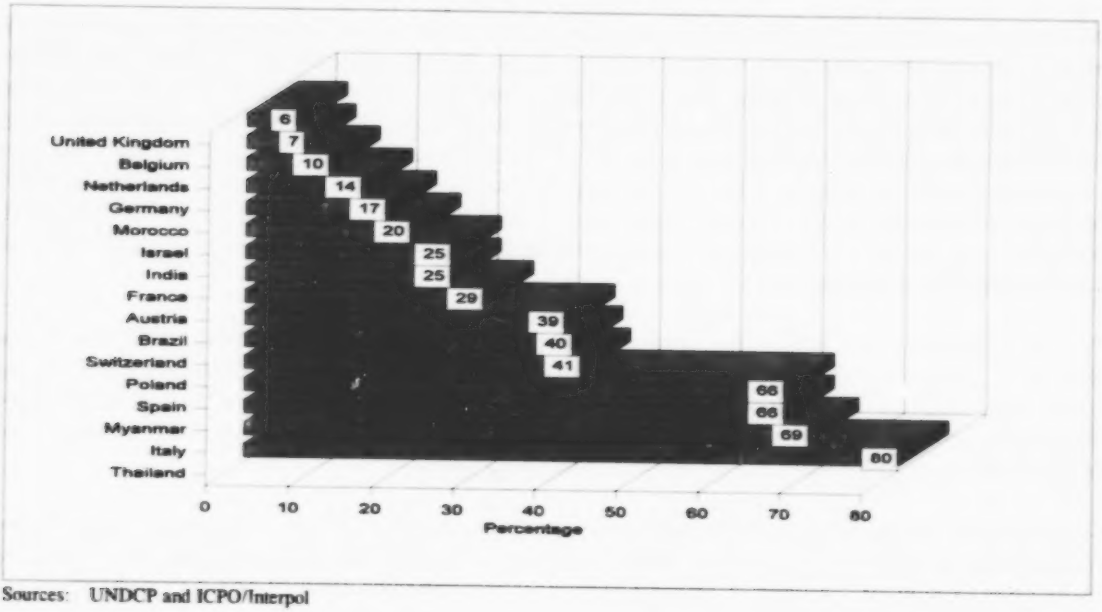



Sources: UNDCP and ICPO/Interpol

88. While the health problems affect primarily the concerned drug user and only indirectly affect society at large through a higher health bill, the links between drug addiction, needle-sharing, prostitution, AIDS and other diseases, are even more clearly demonstrable. That creates additional health dangers for society at large. At the global level, some 22 per cent of the world's HIV/AIDS population injects drugs, which is a significantly higher proportion than that of the drug-injecting population in the total population. Reports from individual countries (see figure XVII) suggest that the share of IDUs in the HIV/AIDS population is as high as 80 per cent in Thailand, 69 per cent in Italy, 66 per cent in Myanmar, 66 per cent in Spain, 41 per cent in Poland, 40 per cent in Switzerland, 39 per cent in Brazil, 30 per cent in the United States, and 25 per cent in France and India. Lower shares are reported for countries in Central America, Germany (14 per cent), the Netherlands (10 per cent), China (8 per cent), Sweden (8 per cent) and the United Kingdom (6 per cent).

89. The resulting debate revolves around a variety of medical, ethical and legal questions, one of which concerns balancing policies for reduction and eradication of drug abuse with policies that aim at limiting the spread of diseases (such as HIV/AIDS) that may be associated with drug abusers.[53]

Figure XVII. Proportion of injecting drug abusers in HIV/AIDS population, selected countries




Sources: UNDCP and ICPO/Interpol

## C. Education

90. Though education and drug abuse often appear to be in a cyclical relationship with each other, it is generally believed that education is an important point of intervention for the prevention of drug abuse.

91. The use of drugs often results in impairment of short-term memory and other mental functions, impaired tracking ability in sensory and perceptual functions, preoccupation with acquiring drugs, adverse emotional and social development of pupils, and thus generally impaired classroom performance. Reduced cognitive efficiency leads to poor academic performance and a resulting decrease in self-esteem, contributing to instability of the individual sense of identity which is, in turn, likely to further contribute to drug consumption, leading to a vicious circle.

92. At the same time, education is one of the principal means of preventing drug abuse. It should be appreciated, however, that preventive education is a process which will only produce results in the long run, in particular when operating in close cooperation with parents. Unfortunately, scientifically validated information on the overall effectiveness, as well as cost-effectiveness, of various approaches, is usually not available.

## D. Environment

93. Environmental damage related to illicit drugs is caused in producing countries by clearing of forests, growth and cultivation of plants as monocultures, and processing of harvested plants into drugs, using environmentally dangerous chemicals without taking the necessary precautions. Although environmental damage due to illicit drug production has to some extent been documented, there appears

to have been little effort, so far, to compare illicit drug-related damage with that resulting from licit agriculture and industry.

94. The type of environmental damage found in any one country will depend on the specific role it plays in the operations of the illicit drug industry. In the Andean countries, for example, coca farmers cut down forests on steep hillsides subject to erosion, instead of expanding cultivation of rich alluvial soil on the valley floors.[54] It is feared that coca cultivation may have resulted in deforestation of 700,000 hectares in the Amazon region in Peru.[55] An estimated 2 to 6 hectares of forest land are cleared by farmers in Chapare (Bolivia) for each hectare of coca production. This would mean that between 260,000 and 780,000 hectares have been cleared as a result of the boom in coca production, compared with the 250,000 hectares of forest estimated to have been lost annually, in recent years, to timber extraction, colonization and cattle ranching.[6]

95. In South-East Asia, most opium poppy cultivation takes place in the rain forests. The traditional slash and burn system used by the hill tribes has cleared enormous amounts of rain forest in recent years, with much of the cleared land coming under poppy cultivation. Those forests might have otherwise been used much more productively. Slash and burn agriculture, in any case, damages the environment through denudation, top-soil loss and river silting.[7]

96. Similarly, in the tropical and high mountain forest regions of Latin America, opium poppy cultivation is beginning to emerge on fragile land that is isolated and difficult to detect. Given the illegality of cultivation, growers of opium poppy, coca and cannabis often do not put much effort into preserving the soil from erosion or careful treatment of the land. Unlike indigenous farmers, cultivators of drug crops have fewer ties to the land and are less respectful of it. As a consequence, their practices are far more wasteful, depleting the soil without allowing it an opportunity to restore itself. In an effort to raise productivity, illicit cultivators frequently use herbicides and insecticides in larger amounts than normally acceptable. The intense use of pesticides by coca cultivators in the Chapare area has already seriously contaminated the groundwater.[7]

97. Another form of damage to the environment caused by coca and opium results from the improper disposal of toxic wastes created during the processing of the plant material into a form of consumable drug. In Bolivia, some 30,000 tonnes of toxic chemicals, including lime, sodium carbonate, sulphuric acid, kerosene, acetone and hydrochloric acid, used in the processing phases of illicit drugs, ranging from being moderately toxic to extremely destructive for the environment, are flushed down the waterways each year without any proper waste-water treatment. Moreover, some 200,000 tonnes of discarded contaminated coca leaves are left to leach into the soil every year.[7] In Peru, the extensive use of chemicals to process drugs and the practice of disposing them off by the quickest means possible has been responsible for killing whole species of fish and aquatic plants in the Huallaga river.[8] According to United States government studies, cocaine processors in the Andean region dump each year some 10 million litres of sulphuric acid, 16 million litres of ethyl ether, 8 million litres of acetone and from 40 to 770 million litres of kerosene (depending on how much is indeed recycled) into the water. The chemical wastes alter water pH, reduce oxygen, and lead to acute poisoning of fish and plants, and even to possible genetic mutations in some species.[54]

98. Finally, the environmental impact of herbicides to eradicate illicit drug cultivation is a cause of concern. What seems to be needed is a balanced assessment of the relative environmental impact of existing cultivation practices, often using damaging agrochemicals, versus a one-time chemical or biological intervention for eradicating the illicit crop in question.

## E. Crime, corruption and dangers for civil society

99. Drugs and crime are related in several ways. Illicit production, manufacture, distribution, possession and consumption (although with some exceptions) of illicit drugs constitute criminal offences in most countries, in particular those countries which are signatories to the 1961, 1971 and 1988 Conventions. In the United States, for example, almost 60 per cent of all federal prisoners in 1992 were drug offenders.[56]

100. Drugs increase the likelihood of many kinds of criminal activity. Drug-related crime occurs primarily in the form of trafficking-related criminal activity, including violent conflicts among trafficking groups for increased market share, and also as a result of the need of drug consumers to finance their addiction through theft and prostitution. Long-term trends (based on 1975-1989 data) presented to the Commission on Crime Prevention and Criminal Justice show that drug-related crime and robbery were the fastest-growing component in overall crime, except kidnapping.[57]

101. Even though research in the United States seems to show that delinquency (in particular involvement in property crime) precedes substance abuse, there is no doubt that property crime further increases once addiction occurs. Review of the literature indicates a strong probability that drug addicts tend to be deeply involved in criminal activities, with daily users of drugs having a severalfold higher rate of criminality than non-drug users.[5] A study of heroin abusers attending the Liverpool Drug Dependency Unit reported that between 1985 and 1987, 90 per cent financed part of their habit - costing them on average £40 a day - from shoplifting or burglary.[58] Another study found that almost 50 per cent of the total value of theft in 1993 in England and Wales was drug-related.[59] A study based on the results of the United States Drug Use Forecasting Programme, testing nearly 3,000 persons charged with serious non-drug related offences, found that about three quarters in New York and Philadelphia, and about two thirds in the District of Colombia,* tested positive for cocaine.

102. Experts found that during periods of curtailed narcotics use produced by treatment, property crime levels are significantly reduced and tend to become low after termination of an addiction career.[60] Another United States study, based on data from California in the early 1990s, showed that victim and theft losses caused by drug abusers fell, by more than one half, from an average $9,790 per drug user in the year prior to treatment, to $4,320 in the year following treatment.[27]

103. Drug-related crime and violence is high not only in consumer countries, but also in producer countries, with the most striking example being Colombia. With drug cultivation and trafficking booming in Colombia since the late 1970s, the number of killings increased from 17 per 100,000 people in the 1973-1975 period (that is, before large-scale drug cultivation started) to 63 per 100,000 in 1988, which is the third highest rate in the world. Studies on the regional distribution of violence showed that among the 10 most violence-prone regions in Colombia, eight were major cocaine- and marijuana-producing and -trafficking areas. Indeed, the correlation between poverty or inequality and violence was much weaker than the correlation between violence and drug-producing and -trafficking areas.[61]

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*For this study almost 3,000 males in 14 prisons in the United States were urine tested in 1989. Preference for selection into the testing programme was given to persons charged with serious non-drug-related offences. The test method used detected only drugs used from two to three days prior to arrest, so that actual drug use by arrestees may have been even higher. See Morbidity and Mortality Weekly Report, vol. 38, No. 45, pp. 780-783.

104. While the link between drugs and crime is well established, studies and opinions of experts differ about how far law enforcement prevents crime by limiting the number of drug abusers. Some researchers even question whether law enforcement may not in fact contribute to an increase in certain kinds of crime such as violent conflicts among dealers for market share and crimes committed by abusers to finance their habit.[62]

105. The impact of illicit drug abuse and trafficking on law enforcement is both extensive and intensive. At each step along the chain of production, distribution and consumption, illicit drugs have a considerable impact because they divert time, energy and resources away from other responsibilities. The study on costs of drug abuse in California mentioned above showed, for instance, that a drug abuser prior to treatment costs the taxpayer in California on average $7,940 for the services of the criminal justice system, which is more than one third of total drug-related costs.[44] Quite apart from those costs, in the event of a well-organized illicit drug industry, there is the danger of police corruption.

106. Though usually the exception, there can be components in law enforcement programmes which actually cost nothing. The asset forfeiture provision of the federal law for crop suppression (mostly cannabis in the State of Kentucky), proved to be such a case in the United States, costing the Government just $13.7 million, but yielding a return of $53 million in 1991, that is, almost $4 in assets seized for every $1 invested by the Drug Enforcement Administration.[63] The general pattern is, however, quite different. Overall United States drug-related law enforcement expenditure (police, courts, prosecution, corrections) by the federal Government and the states was $12.5 billion in 1991,[12] that is, some 0.2 per cent of the United States GNP. As an absolute number, that figure was higher than the individual GNPs of 125 out of 208 economies in 1991.

107. A much discussed question concerns the links between illicit drug-trafficking organizations and terrorism or insurgent groups, in order to finance operations, gain political support, or undermine an existing Government. There is evidence that a number of insurgent and terrorist organizations deal in illicit drugs for pragmatic, apart from other, reasons. Several, particularly in the coca-growing regions of South America, use their support of the cocaine trade to bolster political positions and to acquire operating funds, even though they may be ideologically opposed to the drug trade itself. Various groups with similar agendas are reported elsewhere: in Central America, Afghanistan, Myanmar, Sri Lanka and Thailand.[64, 65]

108. Illicit drug funds, laundered or otherwise, may infiltrate the formal economy and subsequently the political system as well, endangering the very foundation and the proper functioning of civil society, leading to social disintegration and anarchy.[7] In Colombia, drug money seems to have infiltrated the "last crevices of society, politics, the economy, and even cultural and sports activities", including investments into professional soccer teams to gain public support and respect, as well as to have an ideal vehicle for money-laundering.[7]

109. The magnitude of funds under criminal control pose special threats to Governments, particularly in developing countries where the domestic securities and capital markets are far too small to absorb those funds without soon becoming dependent on them.[41] It is difficult to have a functioning democratic system when drug cartels have the means to buy protection, support, or votes at every level of Government and society.[15] In systems where a member of the legislature or the judiciary, earning only modest income, can easily gain the equivalent of some 20 months of salary from a trafficker by making one "favourable" decision, the dangers of corruption are obvious.[7] Given the already considerable influence of major drug traffickers and their ability to develop popular and political support,[66] Governments in a number of producer countries have to accommodate to pressure from the traffickers or risk major political unrest. In other words, the drug trade, financing and laundering nexus has created

a perverse situation in which Governments may have to remain passive in the fight against drug trafficking in order to preserve a minimum level of social peace.[7]

## IV. ACTIONS REQUIRED BY THE COMMISSION

110. Quite apart from all the limitations inherent in trying to assess the extent of the illicit drug problem, the present report shows that an assessment of the economic and social consequences of the problem is no less difficult. Information about the consequences of drug abuse is inchoate, and very far from conforming to even the most basic of cross-national comparative standards. Yet, fragmented as the information may be, it is imperative that a start be made in the process of converting it into policy-relevant knowledge. Since this knowledge should be cross-national in character, UNDCP appears to be uniquely equipped to synthesize it. In order to make such a synthesis policy-relevant, the guidance of the Commission is needed. The present report, by means of a brief synthesis, seeks to provide the Commission with a framework for assessing policy relevance, as well as guiding the process forward.

111. Since many Member States have a manifest need for a clear assessment of the cost effectiveness of public policy interventions and optimal allocation of public resources in limiting illicit drug production, trafficking and abuse, it is evident that the process of synthesizing information on the economic and social consequences should continue, perhaps even accelerate. Such an analysis is also likely to become a powerful instrument for building a global consensus on better drug control measures. Yet the complexity of the problem, its transnational character and the multiplicity of actors involved all demand a United Nations system-wide effort, using the comparative advantage of the system to continue the integrating and synthesizing process.

112. While research on many specific dimensions of the illicit drug problem has intensified in the last few years, and this trend is likely to continue, there is an imperative need for cross-national cost-benefit analyses, in economic, social and health terms, of illicit drug production, trafficking and consumption. At the same time, there is a commensurate need, equally imperative, to assess the relative costs and benefits, also in cross-national terms, of different drug control policies. The Commission may wish to consider advocating and guiding research in those directions.

113. Finally, arriving at a balanced assessment of the economic and social consequences of the illicit drug problem clearly requires a review of the global impact of three phenomena which are related, but not addressed directly, in the present report: psychoactive pharmaceutical drugs that become illicit as a result of being diverted from licit purposes; illicitly produced synthetic drugs; and chemicals used in the illicit manufacture of narcotic drugs and psychotropic substances. The magnitude of the phenomena appears to be considerable, but few measures of their global salience are available. The Commission might therefore wish to secure the basis of a balanced assessment of the entire issue by encouraging studies, along the lines of the present report, of the three complementary areas.

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## Annex I

## ILLICIT DRUG PRODUCTION

Table 2. Trends in global production of illicit drugs
(1985 = 100)

| Drug | Unit and index | 1985 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 |
|---|---|---|---|---|---|---|---|---|
| Opium | Tonnes | 1 298 | 2 590 | 3 698 | 3 257 | 3 519 | 3 409 | 3 699 |
| | Index | 100.0 | 199.5 | 284.9 | 250.9 | 271.1 | 262.6 | 285.0 |
| Coca leaf | Tonnes | 143 715 | 293 700 | 298 070 | 305 970 | 331 140 | 333 900 | 271 700 |
| | Index | 100.0 | 204.4 | 207.4 | 212.9 | 230.4 | 232.3 | 189.1 |
| Marijuana | Tonnes | 7 596 | 17 455 | 36 755 | 25 600 | 13 465 | 13 058 | 14 407 |
| | Index | 100.0 | 229.8 | 483.9 | 337.0 | 177.3 | 171.9 | 189.7 |
| Hashish | Tonnes | 1 265 | 1 285 | 1 490 | 685 | 1 130 | 585[a] | 1 150 |
| | Index | 100.0 | 101.6 | 117.8 | 54.2 | 89.3 | 46.2 | 90.9 |

Source: Bureau of International Narcotics Matters, International Narcotics Control Strategy Report 1994 (Washington, D.C., Department of State, 1994), p. 20. Base-year figures (1985) are averages of the range provided in Bureau of International Narcotics Matters, International Narcotics Control Strategy Report 1986 (Washington, D.C., Department of State, 1986), p. 11.

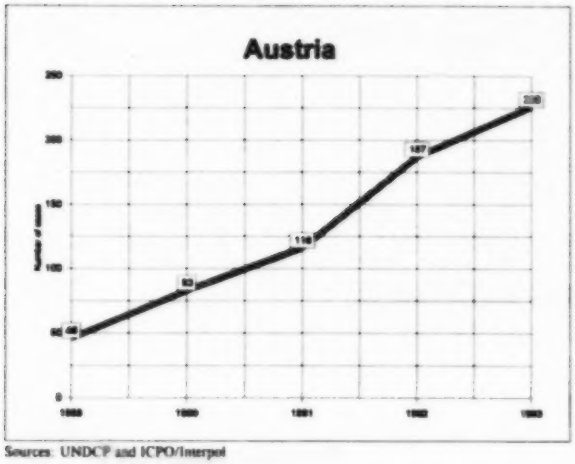
[a] Figure does not include Lebanon.

## Annex II

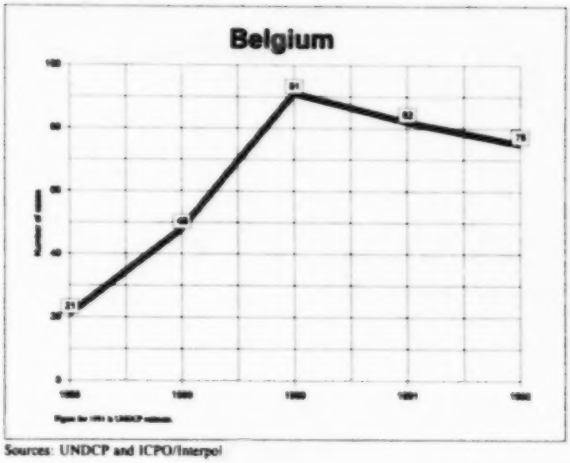
## SUBSTANCE-ABUSE-RELATED MORTALITY

**Figure XVIII. Substance-abuse-related mortality, selected countries and areas**

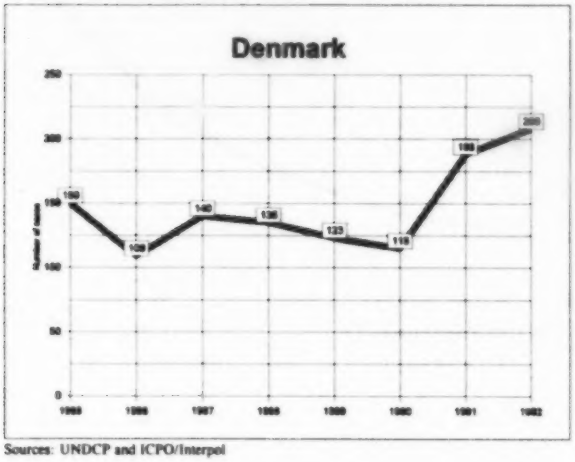
A. Europe




Sources: UNDCP and ICPO/Interpol




Sources: UNDCP and ICPO/Interpol

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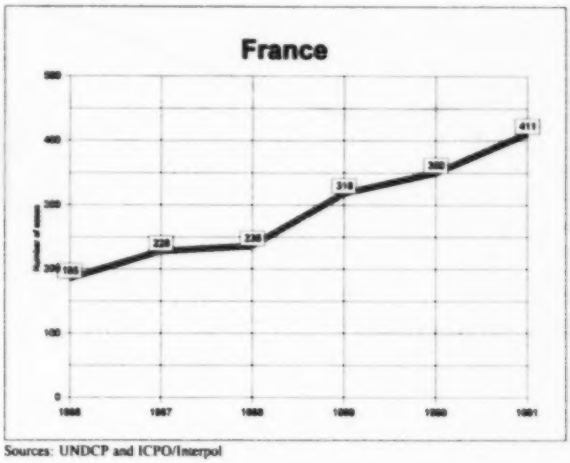


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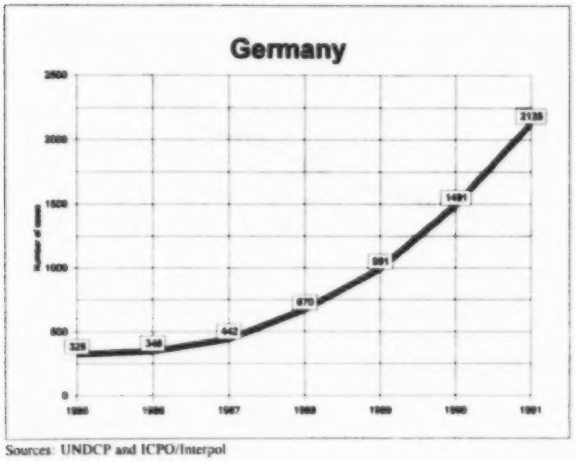


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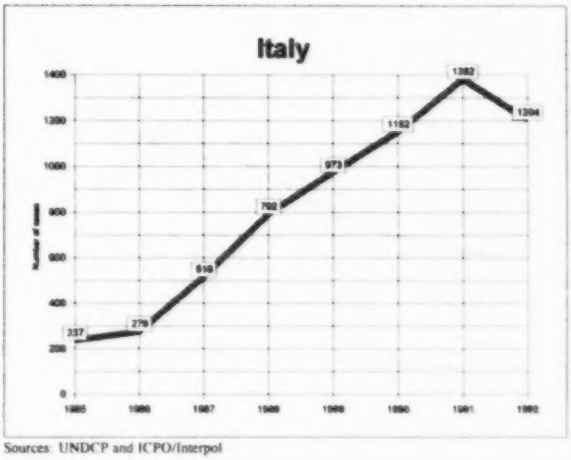
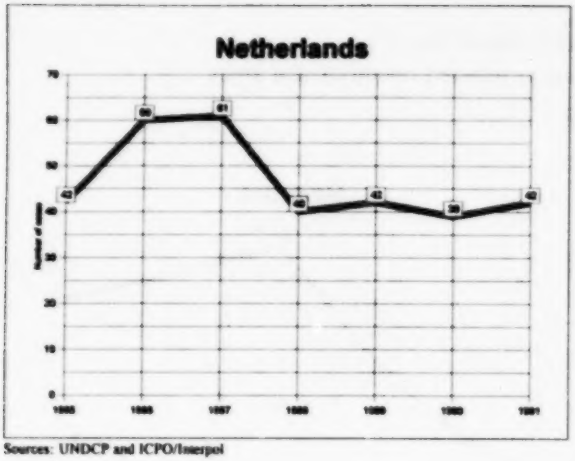



Sources: UNDCP and ICPO/Interpol

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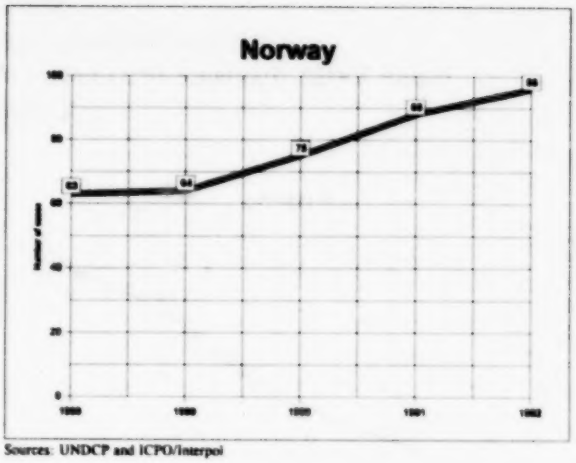


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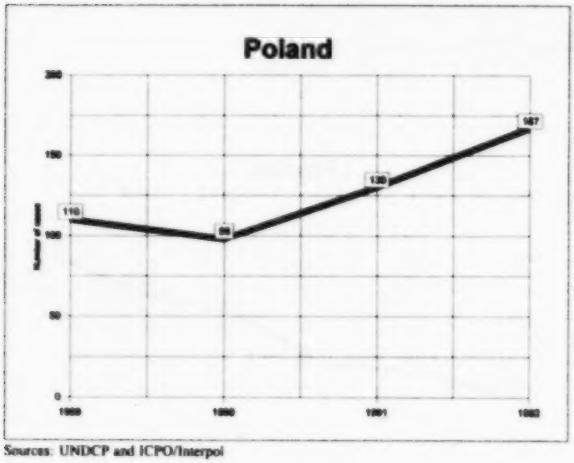


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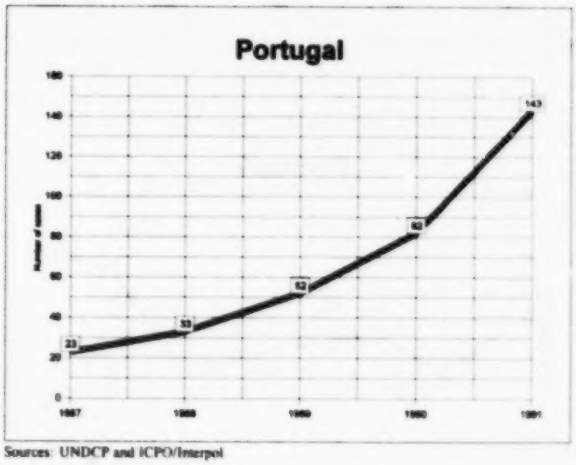


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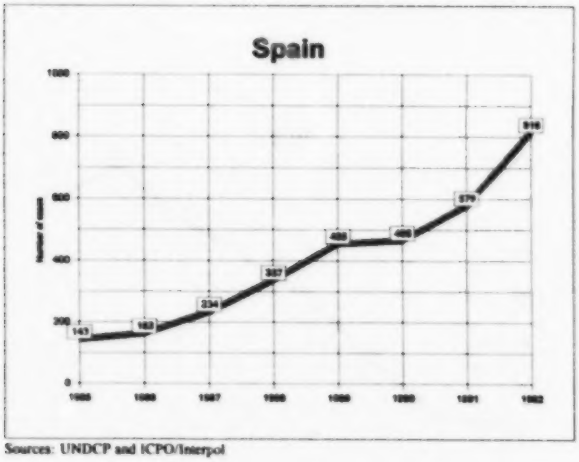


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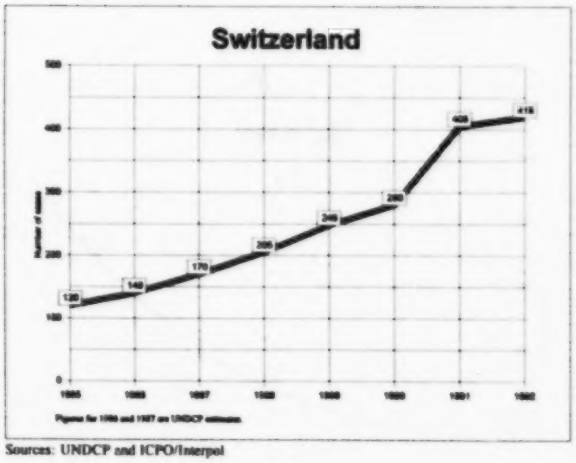


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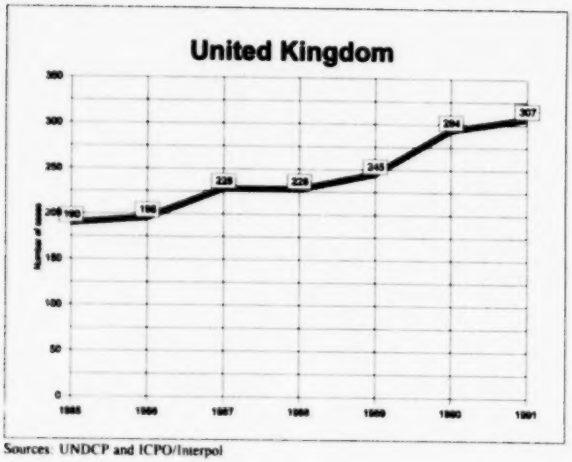


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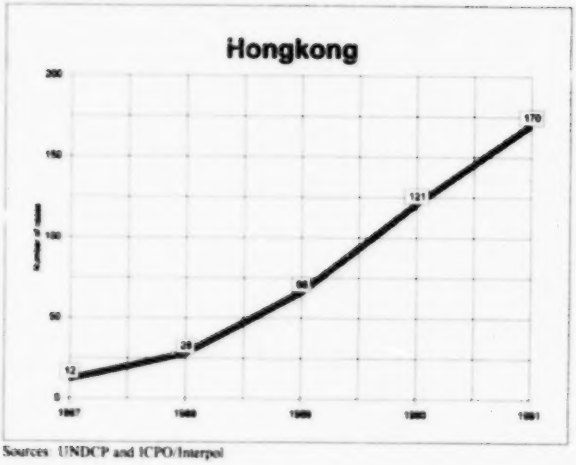
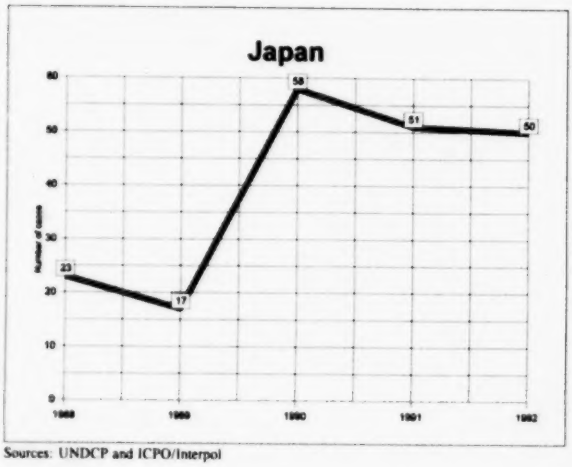
## B. Other




Sources: UNDCP and ICPO/Interpol

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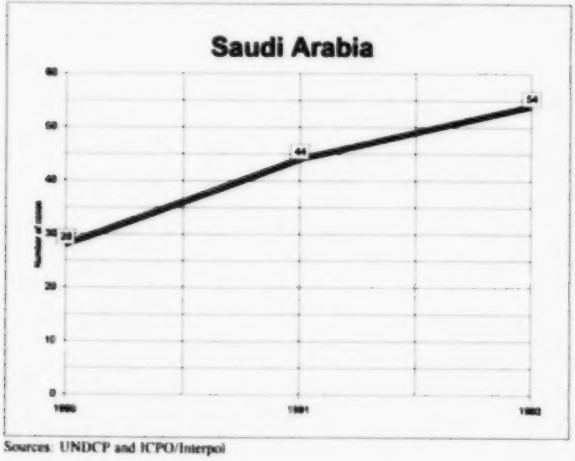


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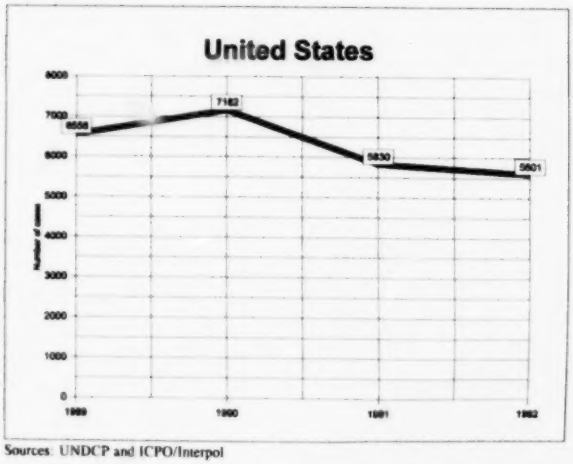


Sources: UNDCP and ICPO/Interpol